10/077,130

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     (FILE 'HOME' ENTERED AT 08:56:50 ON 18 OCT 2004)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 08:57:15 ON 18 OCT 2004
                E YOUNG P/AU
L1           1780 S E3
L2            948 S SARCOMERIC/TI
L3              8 S L1 AND L2
L4              3 DUP REM L3 (5 DUPLICATES REMOVED)
L5        1245030 S KINASE?
L6         457845 S HUMAN AND L5
L7        6744128 S CLON? OR EXPRESS? OR RECOMBINANT
L8         226090 S L6 AND L7
L9             38 S "12599"
L10             2 S L8 AND L9
L11             1 DUP REM L10 (1 DUPLICATE REMOVED)
L12       2574803 S CARDIOVASCULAR OR PROLIFERATIVE
L13         11316 S L8 AND L12
L14          2274 S "HUMAN PROTEIN KINASE"
L15            76 S L13 AND L14
L16            65 DUP REM L15 (11 DUPLICATES REMOVED)
                E KAPELLER-LIBERMAN R/AU
                E KAPELLER R/AU
                E LIBERMANN R/AU
                E KAPELLER R/AU
L17            44 S E6-E7
L18             0 S L15 AND L17
L19            10 S L8 AND L17
L20             9 DUP REM L19 (1 DUPLICATE REMOVED)
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 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  Jul 12   BEILSTEIN enhanced with new display and select options,
                   resulting in a closer connection to BABS
 NEWS  4  AUG 02   IFIPAT/IFIUDB/IFICDB reloaded with new search and display
                   fields
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                   Patent Office Classifications
 NEWS  6  AUG 02   The Analysis Edition of STN Express with Discover!
                   (Version 7.01 for Windows) now available
 NEWS  7  AUG 27   BIOCOMMERCE: Changes and enhancements to content coverage
 NEWS  8  AUG 27   BIOTECHABS/BIOTECHDS: Two new display fields added for legal
                   status data from INPADOC
 NEWS  9  SEP 01   INPADOC: New family current-awareness alert (SDI) available
 NEWS 10  SEP 01   New pricing for the Save Answers for SciFinder Wizard within
                   STN Express with Discover!
 NEWS 11  SEP 01   New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
 NEWS 12  SEP 14   STN Patent Forum to be held October 13, 2004, in Iselin, NJ
 NEWS 13  SEP 27   STANDARDS will no longer be available on STN
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 NEWS EXPRESS  JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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=> file medline embase biosis biotechds scisearch hcaplus ntis lifesci
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=> e young p/au
E1            1     YOUNG OWL ROLAINE C/AU
E2            1     YOUNG OWL ROLAINE CHANDLER/AU
E3         1780 --> YOUNG P/AU
E4          361     YOUNG P A/AU
E5            4     YOUNG P A V/AU
E6           89     YOUNG P B/AU
E7          386     YOUNG P C/AU
E8           83     YOUNG P C M/AU
E9           14     YOUNG P D/AU
E10         416     YOUNG P E/AU
E11          39     YOUNG P F/AU
E12         559     YOUNG P G/AU

=> s e3
L1         1780 "YOUNG P"/AU

=> s sarcomeric/ti
L2          948 SARCOMERIC/TI

=> s l1 and l2
L3            8 L1 AND L2

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4            3 DUP REM L3 (5 DUPLICATES REMOVED)

=> d 1-3 ibib

L4   ANSWER 1 OF 3     MEDLINE on STN                    DUPLICATE 1
ACCESSION NUMBER:   2001411436     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 11448995
TITLE:              Obscurin, a giant sarcomeric Rho guanine
                    nucleotide exchange factor protein involved in sarcomere
                    assembly.
COMMENT:            Comment in: J Cell Biol. 2001 Jul 9;154(1):21-4. PubMed ID:
```

11448986
AUTHOR: **Young P**; Ehler E; Gautel M
CORPORATE SOURCE: European Molecular Biology Laboratory, Structural Biology Division, 69117 Heidelberg, Germany.
SOURCE: Journal of cell biology, (2001 Jul 9) 154 (1) 123-36.
Journal code: 0375356. ISSN: 0021-9525.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 20010820
Last Updated on STN: 20010820
Entered Medline: 20010816

L4 ANSWER 2 OF 3 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 1999324461 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10396139
TITLE: Control of **sarcomeric** assembly: the flow of information on titin.
AUTHOR: Gautel M; Mues A; **Young P**
CORPORATE SOURCE: European Molecular Biology Laboratory, Heidelberg, Germany.
SOURCE: Reviews of physiology, biochemistry and pharmacology, (1999) 138 97-137. Ref: 173
Journal code: 0434624. ISSN: 0303-4240.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 199908
ENTRY DATE: Entered STN: 19990816
Last Updated on STN: 19990816
Entered Medline: 19990803

L4 ANSWER 3 OF 3 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 1998169378 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9501083
TITLE: Molecular structure of the **sarcomeric** Z-disk: two types of titin interactions lead to an asymmetrical sorting of alpha-actinin.
AUTHOR: **Young P**; Ferguson C; Banuelos S; Gautel M
CORPORATE SOURCE: European Molecular Biology Laboratory, Postfach 10 22 09, 69012 Heidelberg, Germany.
SOURCE: EMBO journal, (1998 Mar 16) 17 (6) 1614-24.
Journal code: 8208664. ISSN: 0261-4189.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199804
ENTRY DATE: Entered STN: 19980507
Last Updated on STN: 19980507
Entered Medline: 19980424

=> d his

(FILE 'HOME' ENTERED AT 08:56:50 ON 18 OCT 2004)

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 08:57:15 ON 18 OCT 2004
E YOUNG P/AU

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L1          1780 S E3
L2           948 S SARCOMERIC/TI
L3             8 S L1 AND L2
L4             3 DUP REM L3 (5 DUPLICATES REMOVED)

=> s kinase?
L5       1245030 KINASE?

=> s human and l5
L6        457845 HUMAN AND L5

=> s clon? or express? or recombinant
   5 FILES SEARCHED...
L7       6744128 CLON? OR EXPRESS? OR RECOMBINANT

=> s l6 and l7
L8        226090 L6 AND L7

=> s "12599"
L9             38 "12599"

=> s l8 and l9
L10             2 L8 AND L9

=> dup rem l10
PROCESSING COMPLETED FOR L10
L11             1 DUP REM L10 (1 DUPLICATE REMOVED)

=> d all

L11   ANSWER 1 OF 1  BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
      DUPLICATE 1
AN    2003-12936  BIOTECHDS
TI    Novel isolated human protein kinase, designated 59079
      or 12599 polypeptide, useful as diagnostic and therapeutic
      agents for preventing cardiovascular diseases, proliferative disorders,
      and protein kinase disorders;
           recombinant protein production and sense and antisense
         sequence for use in gene therapy
AU    KAPELLER-LIBERMANN R; ACTON S L
PA    MILLENNIUM PHARM INC
PI    US 2002168742 14 Nov 2002
AI    US 2002-77130 15 Feb 2002
PRAI  US 2002-77130 15 Feb 2002; US 2001-269201 15 Feb 2001
DT    Patent
LA    English
OS    WPI: 2003-298729 [29]
AB    DERWENT ABSTRACT:
      NOVELTY - An isolated human protein kinase, 59079 or
      12599 polypeptide (I), encoded by nucleic acid molecule
      comprising at least 85 % identity to a 8106, 7893, 24120 or 23907
      nucleotide sequence (S1), given in the specification, or its complement,
      a naturally occurring variant of polypeptide having a 2630 or 7968 amino
      acid sequence (S2), given in the specification, or its fragment, is new.
           DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1)
      an isolated nucleic acid molecule (II) comprising a sequence having at
      least 85 % identity to S1, a sequence comprising a fragment of at least
      300 nucleotides of S1, a sequence encoding (I), or a nucleic acid
      molecule which encodes a complement of the above, under stringent
      conditions; (2) a host cell (III), preferably non-human
      mammalian host cell containing (II); (3) producing (I); (4) an antibody
      (Ab) which selectively binds (I); (5) detecting the presence of (II) in a
      sample, by contacting the sample with nucleic acid probe or primer (P)
      which selectively hybridizes to (II), and determining whether the nucleic
```

acid probe or primer binds to a nucleic acid molecule in the sample; (6) a kit (IV) comprising a compound which selectively binds (I) or a compound which selectively hybridizes to (II), and instructions for use; (7) identifying a compound which binds to (I), by contacting (I) or a cell **expressing** (I) with a test compound and determining whether (I) binds to the test compound; and (8) modulating the activity of (I), by contacting (I) or a cell **expressing** (I) with a compound which binds to (I) in a sufficient concentration to modulate the activity of (I).

WIDER DISCLOSURE - (1) an isolated nucleic acid molecule antisense to (II); (2) nucleic acid constructs or vectors including (II); (3) a two-dimensional array having a number of addresses, each having a unique capture probe; (4) molecular beacon oligonucleotide primer and probe molecules; (5) assays for determining a genetic alteration in (I) or (II); (6) analyzing a sample by contacting the sample with the above array and detecting binding of the sample to the array; (7) detectably labeled 59079 or **12599** probes and primers; (8) 59079 or **12599** chimeric or fusion proteins; (9) non-**human** transgenic animals comprising (II), and a population of cells from the transgenic animal; (10) novel agents identified by the screening methods; (11) determining if a subject is at a risk for a disorder related to a lesion in or the misexpression of a gene encoding 59079 or **12599** ; (12) monitoring the influence of agents (e.g. drugs) on the **expression** or activity of 59079 or **12599** protein; (13) analyzing a number of capture probes, and analyzing 59079 or **12599**, e.g. structure, function or relatedness to other nucleic acid or amino acid sequences; (14) a set of oligonucleotides for identifying single nucleotide polymorphism; (15) a computer readable record of a 59079 or **12599** sequence that includes recording the sequence on a computer-readable matrix; (16) making the above computer readable record; (17) a medium for holding instructions for performing a method for determining whether the subject has a protein **kinase** receptor-associated or another 59079 or **12599**-associated disease or disorder, preferably in an electronic system or in a network; (18) a business method for determining whether the subject has a protein **kinase** receptor-associated or another 59079 or **12599** -associated disease or disorder; and (19) an array comprising a 59079 or **12599** sequence.

BIOTECHNOLOGY - Preparation: (I) is produced by culturing (III) under conditions in which (II) is **expressed** (claimed). Preferred Method: The sample comprises mRNA molecules, and is contacted with a nucleic acid probe. Binding of test compound with (I) is detected by direct binding of test compound/polypeptide binding, detection of binding using a competition binding assay and a detection of binding using an assay for 59079- or **12599**-mediated signal transduction. Preferred Sequence: (I) further comprises heterologous amino acid sequences. (II) further comprises vector nucleic acid sequences and a nucleic acid sequence encoding the heterologous polypeptide.

ACTIVITY - Cardiant; Antiatherosclerotic; Cytostatic; Anti-HIV; Hemostatic; Immunosuppressive; Antianemic; Antidiabetic; Antipsoriatic; Antiinflammatory; Antirheumatic; Antiarthritic; Neuroprotective.

MECHANISM OF ACTION - Gene therapy; modulator of **expression** or activity of 59079 or **12599** molecules. No biological data is given.

USE - Ab is useful for detecting the presence of (I) in a sample. (I) is useful for identifying a compound which modulates the activity of (I). (All claimed.) (I) and (II) are useful as diagnostic and therapeutic agents for preventing a disease or condition associated with an aberrant or unwanted 59079 or **12599** activity in a subject, including cardiovascular diseases such as heart failure, and myocardial infarction; disorders involving blood vessels such as atherosclerosis, and Kaposi's sarcoma; blood platelets disorder such as thrombocytopenia, leukemia, Hodgkin's disease, hemolytic anemia; cellular proliferative disorders

such as cancer; and protein **kinase** disorders such as autoimmune disorders, diabetes mellitus, psoriasis, inflammatory bowel disease, rheumatoid arthritis, and multiple sclerosis. (I), (II) and Ab are useful in screening assays, detection assays (e.g. forensic biology), and predictive medicine (e.g. diagnostic assays, prognostic assays, and monitoring clinical trials and pharmacogenomics). (I) and Ab are useful as reagents for diagnosing and treating 59079 or **12599**-mediated disorders. (I) and (II) are useful as query sequences to perform a search against public databases to identify other family members or related sequences. (I) is useful as an immunogen to generate Ab, and as a bait protein in yeast two-hybrid or three-hybrid assay to identify other proteins which bind to or interact with 59079 or **12599**. (II) is useful as hybridization probe to identify (II), or as polymerase chain reaction (PCR) primer for the amplification or mutation of (II). (II) is useful in gene therapy, to **express** (I), to detect 59079 or **12599** mRNA or a genetic alteration in a 59079 or **12599** gene, and to modulate 59079 or **12599** activity. (II) is useful in chromosome mapping, to identify an individual from a minute biological sample (tissue typing), and to aid in forensic identification of the biological sample. Ab is useful to isolate and purify (I), to detect (I) and to diagnostically monitor protein levels in tissue as part of a clinical testing procedure. Fragments of (II) are useful as hybridization probes and primers. (I) and (II) are useful as markers of disorders or disease states, drug activity and pharmacogenomic profile of a subject. (IV) is useful for producing non-**human** transgenic animals.

ADMINISTRATION - (I) is administered at a dose of 0.001-30, preferably 5-6 mg/kg, through parenteral, oral, transdermal, systemic, transmucosal or rectal route.

EXAMPLE - None given. (119 pages)

CC THERAPEUTICS, Protein Therapeutics; GENETIC TECHNIQUES and APPLICATIONS, Gene Expression Techniques and Analysis; GENETIC TECHNIQUES and APPLICATIONS, Genomic Technologies; DIAGNOSTICS, Molecular Diagnostics; THERAPEUTICS, Gene Therapy; GENETIC TECHNIQUES and APPLICATIONS, Transgenic Animals and Animal Models; BIOINFORMATICS and ANALYSIS, Hardware; DISEASE, Cancer; DISEASE, Cardiovascular; DISEASE, Blood and Hematopoietic Cells; DISEASE, Endocrine/Metabolic System; DISEASE, Autoimmune Disease; DISEASE, Other Diseases

CT **HUMAN RECOMBINANT** PROTEIN-**KINASE** 59079, **12599** PROTEIN, PREP., ANTIBODY, DNA PRIMER, DNA PROBE, SENSE, ANTISENSE OLIGONUCLEOTIDE, NON-**HUMAN** TRANSGENIC ANIMAL MODEL, COMPUTER BIOINFORMATIC HARDWARE, APPL. DRUG SCREENING, SNP, CARDIOVASCULAR DISEASE, HEART FAILURE, MYOCARDIAL INFARCTION, BLOOD VESSEL DISORDER, ATHEROSCLEROSIS, KAPOSI SARCOMA, BLOOD PLATELET DISORDER, THROMBOCYTOPENIA, LEUKEMIA, HODGKIN DISEASE, HEMOLYTIC ANEMIA, CELLULAR PROLIFERATIVE DISORDER, CANCER, AUTOIMMUNE DISORDER, DIABETES MELLITUS, PSORIASIS, INFLAMMATORY BOWEL DISEASE, RHEUMATOID ARTHRITIS, MULTIPLE SCLEROSIS DIAGNOSIS, THERAPY, PHARMACOGENOMICS, QUERY SEQUENCE, BAIT PROTEIN, CHROMOSOME MAPPING, TISSUE TYPING, GENE THERAPY ANIMAL MAMMAL ENZYME EC-2.7.1.37 BIOINFORMATICS CARDIANT ANTIATHEROSCLEROTIC CYTOSTATIC HEMOSTATIC IMMUNOSUPPRESSIVE ANTIANEMIC ANTIDIABETIC ANTIPSORIATIC ANTIINFLAMMATORY ANTIRHEUMATIC NEUROPROTECTIVE TUMOR DNA SEQUENCE PROTEIN SEQUENCE (22, 21)

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=> d his'
'HIS'' IS NOT A VALID FORMAT FOR FILE 'BIOTECHDS'

The following are valid formats:

ALL   ------- An, Bib, Abstract, and Index Data
DALL  ------- An, Bib, Abstract, and Index Data
IALL  ------- An, Bib, Abstract, and Index Data
BIB   ------- Bibliographic Data
CBIB  ------- Bibliographic Data
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IBIB  ------- Bibliographic Data
ABS   ------- All Abstracts
IND   ------- AN, Classification Codes and Index Terms
TRIAL ------- Short Information (Syn.: TRI, SAM)
FAM   ------- Patent Family

AN       Accession Number
TI       Title
AU       Author
CS       Corporate Source
PA       Patent Assignee
LO       Location
PI       Patent Information
PY       Publication Year
AI       Application Information
PRAI     Priority Application Information
SO       Source
ISN      Coden, ISSN
JT       Journal
DT       Document Type (Syn.: TC)
LA       Language
OS       Other Sources
AB       Abstract
CC       Classification Codes (Syn.: CCEN)
CT       Controlled Terms
EC       Enzyme Numbers

To display a particular field or fields, enter the display field codes. For a list
of display field codes, enter 'HELP DFIELDS' at an arrow prompt (=>). Examples of
formats include: 'TI'; 'AN,TI,AU'; 'BIB,AB'; 'TI,AB'.
The order of the terms in the formats is not important, but information will be
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ENTER DISPLAY FORMAT (BIB):end

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     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 08:57:15 ON 18 OCT 2004
                E YOUNG P/AU
L1          1780 S E3
L2           948 S SARCOMERIC/TI
L3             8 S L1 AND L2
L4             3 DUP REM L3 (5 DUPLICATES REMOVED)
L5       1245030 S KINASE?
L6        457845 S HUMAN AND L5
L7       6744128 S CLON? OR EXPRESS? OR RECOMBINANT
L8        226090 S L6 AND L7
L9            38 S "12599"
L10            2 S L8 AND L9
L11            1 DUP REM L10 (1 DUPLICATE REMOVED)

=> s cardiovascular or proliferative
L12     2574803 CARDIOVASCULAR OR PROLIFERATIVE

=> s l8 and l12
L13       11316 L8 AND L12

=> s _human protein kinase"
MISMATCHED QUOTE 'KINASE"'
Quotation marks (or apostrophes) must be used in pairs,
```

one before and one after the expression you are setting
off or masking.

```
=> s "human protein kinase"
   4 FILES SEARCHED...
L14        2274 "HUMAN PROTEIN KINASE"

=> s l13 and l14
L15          76 L13 AND L14

=> dup rem l15
PROCESSING COMPLETED FOR L15
L16          65 DUP REM L15 (11 DUPLICATES REMOVED)

=> d 1-65 ibib ab

L16   ANSWER 1 OF 65  BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-13997  BIOTECHDS
TITLE:            New human protein kinase,
                  designated NRHK1, and encoding polynucleotides for
                  diagnosing, preventing or treating kinase-related
                  diseases, such as cancer, Parkinson's disease, inflammation,
                  stroke or cardiovascular disorders;
                       recombinant enzyme protein production and
                     antisense sequence for use in disease therapy and gene
                     therapy
AUTHOR:           LIU W; WU L
PATENT ASSIGNEE:  WYETH; LIU W; WU L
PATENT INFO:      WO 2004032878 22 Apr 2004
APPLICATION INFO: WO 2003-US32305 10 Oct 2003
PRIORITY INFO:    US 2002-417155 10 Oct 2002; US 2002-417155 10 Oct 2002
DOCUMENT TYPE:    Patent
LANGUAGE:         English
OTHER SOURCE:     WPI: 2004-340807 [31]
AB    DERWENT ABSTRACT:
      NOVELTY - An isolated polynucleotide comprising (I), is new.
           DETAILED DESCRIPTION - An isolated polynucleotide comprising (I), is
      new. (I) comprises: (a) a nucleic acid sequence encoding a sequence of
      830 amino acids (S2) fully defined in the specification; (b) a variant of
      (a), where the variant and the nucleic acid sequence have at least 91%
      sequence identity; or (c) a sequence that hybridizes under stringent
      conditions to a polynucleotide consisting of a sequence of 2493 bp (S1)
      fully defined in the specification, or its complement, where the
      polynucleotide consists of at least 1000 or at least 2000 nucleic acids
      and does not include a sequence of 2553 (S4) or 2115 (S5) bp given in the
      specification, or its complement, and where the polynucleotide encodes a
      protein kinase. INDEPENDENT CLAIMS are also included for: (1)
      an isolated polypeptide comprising a fragment, or a variant of the
      fragment, of S2, where the fragment comprises at least 500 consecutive
      amino acid residues of S2; (2) an antibody capable of binding to S2 with
      a binding affinity of no less than 105 M-1; (3) an NRHK1 detection kit
      comprising the above antibody or a probe that hybridizes to the
      nucleotide sequence of S1 or its complement; (4) a host cell containing
      the above polynucleotide or its variant; (5) a transgenic non-
      human animal comprising the above polynucleotide or its variant;
      (6) identifying an agent capable of binding to NRHK1 kinase,
      comprising contacting a candidate agent with a polypeptide comprising S2,
      or its fragment or variant; and detecting the binding between the
      candidate agent and the polypeptide; (7) identifying an agent capable of
      modulating the level of activity of NRHK1 kinase, comprising
      contacting a candidate agent with a polypeptide comprising S2 or its
      biologically active fragment; and detecting a change in the level of an
      activity of the polypeptide; (8) a pharmaceutical composition for
      preventing or treating NRHK1-related diseases, comprising a
```

pharmaceutical carrier and an agent that modulates an NRHK1 activity or the NRHK1 gene **expression**; (9) preventing or treating an NRHK1-related disease in a subject, comprising introducing into the subject an amount of the pharmaceutical composition cited above; and (10) inhibiting the **expression** of the gene in the cell by RNA interference comprising introducing the above polynucleotide into a cell which **expresses human** NRHK1 gene.

BIOTECHNOLOGY - Preferred Polynucleotide: The nucleic acid sequence is selected from S1 or a sequence having 29836 bp (S3) fully defined in the specification, its complement, and a nucleic acid sequence that differs from S1 or S3 or its complement due to the degeneracy of the genetic code. The variant and the nucleic acid sequence have at least 95% sequence identity. The polynucleotide is capable of inhibiting **human** NRHK1 gene **expression** by RNA interference. It comprises a siRNA sense strand or a siRNA antisense strand selected from those listed in the specification. Preferred Polypeptide: The polypeptide fragment consists of S2. The variant and the fragment have at least 95% sequence identity. Preferred Transgenic Animal: At least one allele of a gene in the genome of the animal is functionally disrupted, where the gene encodes a polypeptide that has at least 70% sequence identity to S2. Preparation: The polynucleotide was prepared using standard isolation techniques.

ACTIVITY - Cytostatic; Antiasthmatic; Antiparkinsonian; Antiinflammatory; Antipsoriatic; Antirheumatic; Antiarthritic; Osteopathic; Immunosuppressive; **Cardiovascular**-Gen.; Ophthalmological; Cerebroprotective; Anticonvulsant; Vasotropic. No biological data given.

MECHANISM OF ACTION - Gene Therapy.

USE - The composition and methods are useful for diagnosing, prognosing, preventing and treating **kinase**-related diseases, in particular, diseases associated with aberrant **expression** of NRHK1, such as cancer, asthma, Parkinson's disease, inflammation, psoriasis, rheumatoid arthritis, osteoporosis, graft-versus-host disease, **cardiovascular** disorders, autoimmune disorders, retinal detachment, stroke, epilepsy or ischemia/reperfusion.

ADMINISTRATION - Administration can be parenteral (e.g. intravenous, intradermal or subcutaneous), oral (e.g. inhalational), transdermal (topical), transmucosal, or rectal. No dosage details given.

EXAMPLE - No suitable example given. (108 pages)

L16 ANSWER 2 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-13996 BIOTECHDS
TITLE: New **human protein kinase**, designated HPK3P23, and encoding polynucleotides for diagnosing, preventing or treating **kinase**-related diseases, such as cancer, Parkinson's disease, inflammation, stroke or **cardiovascular** disorders; vector-mediated protein-**kinase** gene transfer and **expression** in host cell for **recombinant** protein production, drug screening and gene therapy
AUTHOR: LIU W; WU L
PATENT ASSIGNEE: WYETH; LIU W; WU L
PATENT INFO: WO 2004032877 22 Apr 2004
APPLICATION INFO: WO 2003-US32302 10 Oct 2003
PRIORITY INFO: US 2002-417209 10 Oct 2002; US 2002-417209 10 Oct 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-340806 [31]
AB DERWENT ABSTRACT:

NOVELTY - An isolated polynucleotide comprising (I), is new.

DETAILED DESCRIPTION - An isolated polynucleotide comprising (I), is new. (I) comprises: (a) a nucleic acid sequence encoding a sequence of 1016 amino acids (S2) fully defined in the specification; (b) a variant of (a), where the variant and the nucleic acid sequence have at least 91%

sequence identity; or (c) a sequence that hybridizes under stringent conditions to a polynucleotide consisting of a sequence of 3644 bp (S1) fully defined in the specification, or its complement, where the polynucleotide consists of at least 1000 or at least 2600 nucleic acids and does not include any of the 4 sequences of 1601-2562 bp (S5-8) given in the specification, or its complement, and where the polynucleotide encodes a protein **kinase**. INDEPENDENT CLAIMS are also included for: (1) an isolated polypeptide comprising a fragment, or a variant of the fragment, of S2, where the fragment comprises at least 500 consecutive amino acid residues of S2; (2) an antibody capable of binding to S2 with a binding affinity of no less than 105 M-1; (3) an HPK3P23 detection kit comprising the above antibody or a probe that hybridizes to the nucleotide sequence of S1 or its complement; (4) a host cell containing the above polynucleotide or its variant; (5) a transgenic non-**human** animal comprising the above polynucleotide or its variant; (6) identifying an agent capable of binding to HPK3P23 **kinase**, comprising contacting a candidate agent with a polypeptide comprising S2, or its fragment or variant; and detecting the binding between the candidate agent and the polypeptide; (7) identifying an agent capable of modulating the level of activity of HPK3P23 **kinase**, comprising contacting a candidate agent with a polypeptide comprising S2 or its fragment or variant; and detecting a change in the level of an activity of the polypeptide; (8) a pharmaceutical composition for preventing or treating HPK3P23-related diseases, comprising a pharmaceutical carrier and an agent that modulates an HPK3P23 activity or the HPK3P23 gene **expression**; (9) preventing or treating an HPK3P23-related disease in a subject, comprising introducing into the subject an amount of the pharmaceutical composition cited above; and (10) inhibiting the **expression** of the gene in the cell by RNA interference comprising introducing the above polynucleotide into a cell which **expresses** **human** HPK3P23 gene, thus, .

BIOTECHNOLOGY - Preferred Polynucleotide: The nucleic acid sequence is selected from S1 or a sequence having 220860 bp (S3) fully defined in the specification, its complement, and a nucleic acid sequence that differs from S1 or S3 or its complement due to the degeneracy of the genetic code. The variant and the nucleic acid sequence have at least 95% sequence identity. The polynucleotide is capable of inhibiting **human** HPK3P23 gene **expression** by RNA interference. It comprises a siRNA sense strand or a siRNA antisense strand selected from those listed in the specification. Preferred Polypeptide: The polypeptide fragment consists of S2. The variant and the fragment have at least 95% sequence identity. Preferred Transgenic Animal: At least one allele of a gene in the genome of the animal is functionally disrupted, where the gene encodes a polypeptide that has at least 70% sequence identity to S2. Preparation: The polynucleotide was prepared using standard isolation techniques.

ACTIVITY - Cytostatic; Antiasthmatic; Antiparkinsonian; Antiinflammatory; Antipsoriatic; Antirheumatic; Antiarthritic; Osteopathic; Immunosuppressive; **Cardiovascular**-Gen.; Ophthalmological; Cerebroprotective; Anticonvulsant; Vasotropic. No biological data given.

MECHANISM OF ACTION - Gene Therapy.

USE - The composition and methods are useful for diagnosing, prognosing, preventing and treating **kinase**-related diseases, in particular, diseases associated with aberrant **expression** of HPK3P23, such as cancer, asthma, Parkinson's disease, inflammation, psoriasis, rheumatoid arthritis, osteoporosis, graft-versus-host disease, **cardiovascular** disorders, autoimmune disorders, retinal detachment, stroke, epilepsy or ischemia/reperfusion.

ADMINISTRATION - Administration can be parenteral (e.g. intravenous, intradermal or subcutaneous), oral (e.g. inhalational), transdermal (topical), transmucosal, or rectal. No dosage given.

EXAMPLE - No suitable example given. (210 pages)

L16 ANSWER 3 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-08469 BIOTECHDS
TITLE: New **human protein kinase** (designated 84573) polypeptides and nucleic acid molecules, useful for diagnosing, preventing or treating disorders involving aberrant protein **kinase** function, e.g. cancer or **cardiovascular** disorders; involving vector-mediated gene transfer and **expression** in host cell for use in gene therapy
AUTHOR: TAYBER O
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: US 2004005624 8 Jan 2004
APPLICATION INFO: US 2003-460545 12 Jun 2003
PRIORITY INFO: US 2003-460545 12 Jun 2003; US 2002-388031 12 Jun 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-081718 [08]
AB DERWENT ABSTRACT:

NOVELTY - An isolated nucleic acid molecule selected from (I), is new.

DETAILED DESCRIPTION - (I) comprises a nucleic acid molecule which: (a) comprises a nucleotide sequence at least 85% identical to a sequence of 5232 (S1) or 5229 (S3) bp fully defined in the specification; (b) comprises a fragment of at least 4400 nucleotides of S1 or S3; (c) encodes a polypeptide comprising a sequence of 1743 amino acids (S2) fully defined in the specification; (d) encodes a fragment at least 85% homologous to S2; or (e) encodes a naturally occurring allelic variant of the polypeptide comprising S2, where the nucleic acid molecule hybridizes to a nucleic acid molecule comprising S1 or S3, or its complement, under stringent conditions. INDEPENDENT CLAIMS are also included for: (1) a host cell containing the new nucleic acid molecule; (2) an isolated polypeptide selected from: (a) a polypeptide encoded by a nucleic acid molecule comprising a sequence that is at least 85% identical to S1 or S3, or its complement; (b) a naturally occurring allelic variant of a polypeptide comprising S2, where the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising S1 or S3; and (c) a fragment which is at least 85% homologous to S2; (3) an antibody that selectively binds to the above polypeptide; (4) producing the above polypeptide, comprising culturing the host cell under conditions in which the nucleic acid molecule is **expressed**; (5) detecting the presence of the above polypeptide in a sample, comprising contacting the sample with a compound which selectively binds to the polypeptide, and determining whether the compound binds to the polypeptide in the sample; (6) a kit comprising a compound that selectively binds to the above polypeptide or that selectively hybridizes to the above nucleic acid molecule, and instructions for use; (7) detecting the presence of the above nucleic acid molecule in a sample, comprising contacting the sample with a nucleic acid probe or primer that selectively hybridizes to the nucleic acid molecule, and determining whether the nucleic acid probe or primer binds to the nucleic acid molecule in the sample; (8) identifying a compound that binds to the above polypeptide, comprising contacting a polypeptide, or a cell **expressing** the above polypeptide with a test compound; and determining whether the polypeptide binds to the test compound; (9) modulating the activity of the above polypeptide, comprising contacting a polypeptide or a cell **expressing** the polypeptide with a compound that binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide; and (10) identifying a compound that modulates the activity of the above polypeptide, comprising contacting the polypeptide with a test compound, and determining the effect of the test compound on the activity of the polypeptide to identify a compound that modulates the activity of the polypeptide.

BIOTECHNOLOGY - Preferred Nucleic Acid: The nucleic acid molecule further comprises a fragment of at least 4500 or at least 5000 nucleotides of S1 or S3. It encodes a fragment that is at least 90 or 95%

homologous to S2. The nucleic acid molecule further comprises vector nucleic acid sequences. It comprises nucleic acid sequences that encode a heterologous polypeptide. Preferred Host Cell: The host cell is a non-**human** mammalian host cell. Preferred Polypeptide: The polypeptide comprises S2. It also comprises a fragment that is at least 90 or 95% homologous to S2. It comprises heterologous amino acid sequences. Preferred Antibody: The antibody is a monoclonal antibody. It comprises an immunologically active portion selected from an scFV fragment, a dcFV fragment, an Fab fragment and an F(ab')2 fragment. The antibody is selected from a chimeric antibody, a humanized antibody, a **human** antibody, a non-**human** antibody, and a single chain antibody. Preferred Method: In detecting the presence of the above polypeptide, the compound that binds to the polypeptide is an antibody. In detecting the presence of the nucleic acid molecule in a sample, the sample comprises mRNA molecules and is contacted with a nucleic acid probe. In identifying a compound that binds to the polypeptide, the binding of the test compound to the polypeptide is detected by a method selected from: (a) detection of binding by direct detecting of test compound/polypeptide binding; (b) detection of binding using a competition binding assay; and (c) detection of binding using an assay for 84573-mediated signal transduction. Preparation: The nucleic acid molecule was prepared using standard isolation techniques.

ACTIVITY - Neuroprotective; Nootropic; Antiparkinsonian; Antidepressant; Antiasthmatic; Anabolic; Hypertensive; Cytostatic; Osteopathic; Antiinflammatory; **Cardiovascular**-Gen.; Hepatotropic; Virucide; Analgesic; Endocrine-Gen. No biological data given.

MECHANISM OF ACTION - Gene therapy.

USE - The composition and methods are useful in modulating cellular growth, differentiation and/or development. These may be used for diagnosing, preventing or treating conditions or disorders involving aberrant or deficient protein **kinase** function or **expression**, such as neurological disorders (e.g. depression, Alzheimer's disease or Parkinson's disease), adrenal disorders (e.g. Addison's disease or Cushing's syndrome), respiratory disorders (e.g. asthma), cellular **proliferative** and/or differentiative disorders (e.g. cancer), bone disorders, immune (e.g. inflammatory) disorders, **cardiovascular** disorders, endothelial cell disorders, liver disorders, viral diseases, pain or metabolic disorders. The polypeptides and nucleic acid molecules may also be used in screening assays, in predictive medicine, in monitoring clinical trials, in pharmacogenomics, in tissue typing or chromosomal mapping, or in forensic biology.

ADMINISTRATION - Polypeptide dosage may range from 0.001-30 (preferably 5-6) mg/kg of body weight. Antibody dosage may range from 10-20 (preferably 0.1) mg/kg of body weight. Administration can be parenteral (e.g. intravenous, intradermal or subcutaneous), oral, transdermal (e.g. topical), transmucosal (e.g. inhalation of aerosol or absorption of eye drop), or rectal.

EXAMPLE - No relevant example given. (58 pages)

L16 ANSWER 4 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2004:650120 HCAPLUS
DOCUMENT NUMBER:	141:168962
TITLE:	Single nucleotide polymorphisms as predictive diagnostics for adverse drug reactions and drug efficacy
INVENTOR(S):	Stropp, Udo; Schwers, Stephan; Kallabis, Harald
PATENT ASSIGNEE(S):	Bayer Healthcare AG, Germany
SOURCE:	PCT Int. Appl., 349 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004067774	A2	20040812	WO 2004-EP539	20040123

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI

PRIORITY APPLN. INFO.:	EP 2003-2212	A	20030131
	EP 2003-2153	A	20030203

AB The invention provides diagnostic methods and kits including oligonucleotide and/or polynucleotides or derivs., including as well antibodies determining whether a **human** subject is at risk of getting adverse drug reaction after statin therapy or whether the **human** subject is a high or low responder or a good a or bad metabolizer of statins. Two hundred ninety-two polymorphic sites in a number of candidate genes show a strong correlation with **cardiovascular** disease and to individuals exhibiting low or high levels of adverse drug reactions. The invention provides further diagnostic methods and kits including antibodies determining whether a **human** subject is at risk for a **cardiovascular** disease. Still further the invention provides polymorphic sequences and other genes.

L16 ANSWER 5 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2004:453338 HCAPLUS
DOCUMENT NUMBER:	141:19612
TITLE:	Crystal structure of **human** Polo-like **kinase** Plk1, Polo-box domain-binding phosphopeptide core sequences, and their therapeutic uses for cancer
INVENTOR(S):	Yaffe, Michael B.; Elia, Andrew E. H.; Rellos, Peter; Cantley, Lewis C.; Smerdon, Stephen J.; Mancke, Isaac
PATENT ASSIGNEE(S):	Massachusetts Institute of Technology, USA
SOURCE:	PCT Int. Appl., 317 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004046317	A2	20040603	WO 2003-US36392	20031114

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:	US 2002-426132P	P	20021114
	US 2003-485641P	P	20030708
	US 2003-487899P	P	20030717

OTHER SOURCE(S): MARPAT 141:19612

AB The present invention relates to therapeutic compds. and methods of use of these therapeutic compds. for treating cellular **proliferative**

disorders. The invention also provides three-dimensional structures of a Polo-like **kinase** and methods for designing or selecting small mol. inhibitors using these structures, and the therapeutic use of such compds. The invention also includes a method for identifying phosphopeptide-binding domains by screening peptide libraries. The carboxy-terminal region of the cell cycle regulating **kinase** Plk-1 encodes a phosphopeptide recognition domain that consists of the non-**kinase** region of the protein (amino acids 326-603), called the Polo-box domain. The crystal structure of **human** Plk-1 Polo-box domain in complex with its optimal phosphothreonine-containing peptide was determined to identify the structural basis for Polo-box domain activity. Site-directed mutagenesis showed that phosphoserine/threonine-dependent binding is a general feature of Polo-box domain activity in the Plk family and is important for the function of the domain in **kinase** targeting to substrates and in in vitro activity of the **kinase** domain. A library of partially degenerate phosphopeptides was also used to identify phosphopeptide-binding modules mediating signaling in the DNA damage response pathway. Tandem BRCT domains in the proteins PTIP and BRCA1 were identified as phosphoserine- or phosphothreonine-specific binding modules that recognize a subset of ATM and ATR substrates following γ-irradiation

L16 ANSWER 6 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:60701 HCAPLUS
DOCUMENT NUMBER: 140:122772
TITLE: Protein and cDNA sequences of **human** enzymes and therapeutic use as modulators of cellular proliferation
INVENTOR(S): Hitoshi, Yasumichi; Jenkins, Yonchu; Markovtsov, Vadim
PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 180 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007754	A2	20040122	WO 2003-US22164	20030714
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004126784	A1	20040701	US 2003-620052	20030714
PRIORITY APPLN. INFO.:			US 2002-395443P	P 20020712

AB The present invention provides protein and cDNA sequences of **human protein kinases** that regulate cellular proliferation. More particularly, the present invention is directed to nucleic acids encoding protein **kinase** C ζ (PKC-ζ), phospholipase C-β1 (PLC-β1), protein tyrosine **kinase** 2 (FAK), protein tyrosine **kinase** 2b (FAK2), casein **kinase** 2 (CK2), cMET tyrosine **kinase** (cMET), flap structure specific endonuclease 1 (FEN1), REV1 dCMP transferase (REV1), apurinic/apyrimidinic nuclease 1 (APE1), cyclin dependent **kinase** 3 (CDK3), PIM1 **kinase** (PIM1), cell division cycle 7 **kinase** (CDC7L1), cyclin dependent **kinase** 7 (CDK7), cytokine inducible

kinase (CNK), potentially prenylated protein tyrosine phosphatase (PRL-3), serine threonine **kinase** 2 (STK2) or (NEK4), cyclin dependent serine threonine **kinase** (NKIAMRE), or histone acetylase (HBO1), which are involved in modulation of cell cycle arrest. The invention further relates to methods for identifying and using agents, including small mol. chemical compns., antibodies, peptides, cyclic peptides, nucleic acids, RNAi, antisense nucleic acids, and ribozymes, that modulate cell cycle arrest via modulation of protein **kinase** C ζ (PKC-ζ), phospholipase C-β1 (PLC-β1), protein tyrosine **kinase** 2 (FAK), protein tyrosine **kinase** 2b (FAK2), casein **kinase** 2 (CK2), cMET tyrosine **kinase** (cMET), flap structure specific endonuclease 1 (FEN1), REV1 dCMP transferase (REV1), apurinic/apyrimidinic nuclease 1 (APE1), cyclin dependent **kinase** 3 (CDK3), PIM1 **kinase** (PIM1), cell division cycle 7 **kinase** (CDC7L1), cyclin dependent **kinase** 7 (CDK7), cytokine inducible **kinase** (CNK), potentially prenylated protein tyrosine phosphatase (PRL-3), serine threonine **kinase** 2 (STK2) or (NEK4), cyclin dependent serine threonine **kinase** (NKIAMRE), or histone acetylase (HBO1), as well as to the use of **expression** profiles and compns. in diagnosis and therapy related to cell cycle regulation and modulation of cellular proliferation, e.g., for treatment of cancer and other diseases of cellular proliferation.

L16 ANSWER 7 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:250713 HCAPLUS
DOCUMENT NUMBER: 140:265666
TITLE: cDNA and protein sequences of **human** 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses
INVENTOR(S): Kapeller-Libermann, Rosana; Hunter, John Joseph; Meyers, Rachel E.; Rudolph-Owen, Laura A.; Curtis, Rory A. J.; Olandt, Peter J.; Tsai, Fong Ying; Galvin, Katherine M.; Chun, Miyoung; Williamson, Mark J.; Silos-Santiago, Inmaculada; Bandaru, Rajasekhar
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 139 pp., Cont.-in-part of U.S. Ser. No. 336,153.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 44
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004058355	A1	20040325	US 2003-423543	20030425
US 6140056	A	20001031	US 1999-276400	19990325
US 6403358	B1	20020611	US 1999-412210	19991005
US 6300092	B1	20011009	US 1999-448076	19991123
US 2002042099	A1	20020411	US 2001-797039	20010228
US 6730491	B2	20040504		
US 2002151007	A1	20021017	US 2001-909743	20010720
US 2002081658	A1	20020627	US 2001-920346	20010731
US 2002086405	A1	20020704	US 2001-928531	20010813
US 2003096391	A1	20030522	US 2001-929218	20010814
US 2003017572	A1	20030123	US 2001-961656	20010924
US 2002077312	A1	20020620	US 2001-963159	20010925
US 2002173630	A1	20021121	US 2001-8016	20011108
US 2002164750	A1	20021107	US 2001-12055	20011113
US 6787345	B1	20040907	US 2001-3690	20011115
US 2003022286	A1	20030130	US 2002-60763	20020130
US 2003003477	A1	20030102	US 2002-105989	20020325

US 2002164632	A1	20021107	US 2002-121911		20020412
US 6607892	B2	20030819			
US 2003087382	A1	20030508	US 2002-217168		20020812
WO 2003027308	A2	20030403	WO 2002-US30054		20020923

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003108934	A1	20030612	US 2002-278036	20021022
US 2003119147	A1	20030626	US 2003-336489	20030102
US 2003113790	A1	20030619	US 2003-336153	20030103

PRIORITY APPLN. INFO.:

US 1998-163821	B2	19980930
US 1999-117580P	P	19990127
US 1999-276400	A2	19990325
US 1999-365162	B1	19990730
US 1999-392189	B1	19990909
US 1999-412210	A3	19991005
US 1999-448076	A3	19991123
US 2000-186061P	P	20000229
US 2000-200688P	P	20000428
US 2000-205447P	P	20000519
US 2000-608921	B1	20000630
US 2000-221925P	P	20000731
US 2000-234922P	P	20000925
US 2000-235035P	P	20000925
US 2000-246669P	P	20001108
US 2000-711216	B1	20001109
US 2000-248325P	P	20001114
US 2000-248893P	P	20001115
US 2000-257511P	P	20001222
US 2001-260166P	P	20010105
US 2001-797039	A2	20010228
US 2001-845044	B1	20010427
US 2001-909743	A2	20010720
US 2001-920346	A2	20010731
US 2001-928531	B2	20010813
US 2001-929218	B2	20010814
US 2001-312539P	P	20010815
US 2001-963159	B2	20010925
US 2001-8016	A2	20011108
US 2001-12055	A2	20011113
US 2001-3690	A2	20011115
US 2002-60763	B2	20020130
US 2002-105989	A2	20020325
US 2002-121911	A2	20020412
US 2002-217168	A2	20020812
US 2002-278036	A2	20021022
US 2003-336489	A2	20030102
US 2003-336153	A2	20030103
WO 1999-US22923	A2	19990930
US 2001-961656	A	20010924

AB The invention provides isolated nucleic acids mols., designated 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, m1983, 38555 and 593 nucleic acid mols. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing the same, host cells into which the **expression** vectors have been introduced,

and nonhuman transgenic animals in which above genes has been introduced or disrupted. The invention still further provides isolated their encoded proteins, fusion proteins containing the same, and antigenic peptides and antibodies. 21910 Protein is a sequence homolog of membrane-associated guanylate **kinase** (MAGK). 56634 Protein is a sequence homolog of phosphatidylinositol 4-phosphate 5-**kinase**. 55053, 2504, 15977, 14760 And 3700 proteins are sequence homologs of protein **kinases**. 25501 Protein is a sequence homolog of transferases. 17903 Protein is a sequence homolog of aminopeptidases. 21529 Protein is a sequence homolog of adenylate cyclases. 26176 Protein is a sequence homolog of calpain proteases. 26343 Protein is a sequence homolog of oxidoreductases. 56638 Protein is a sequence homolog of neprilysin proteases. 18610 Protein is a sequence homolog of transient receptor potential ion channel family. 33217 Protein is a sequence homolog of AMP-binding enzymes. 21967 Protein is a sequence homolog of lysyl oxidases. **Human** and mouse 1983 (SLGP) proteins are sequence homologs of G protein-coupled receptors. 38555 And 593 proteins are sequence homologs of transport proteins. Diagnostic and therapeutic methods utilizing compns. of the invention are also provided.

L16 ANSWER 8 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:268235 HCAPLUS
DOCUMENT NUMBER: 140:281389
TITLE: Inhibition of protein **kinase** C-α for treatment of coronary and other diseases
INVENTOR(S): Haller, Herrmann; Menne, Jan
PATENT ASSIGNEE(S): Phenomiques G.m.b.H., Germany
SOURCE: Ger. Offen., 23 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10244453	A1	20040401	DE 2002-10244453	20020924
WO 2004028516	A2	20040408	WO 2003-DE3165	20030923

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: DE 2002-10244453 A 20020924
AB The invention discloses the use of agents which reduce or inhibit the **expression** and/or activity of protein **kinase** C-α for treatment and/or prevention of coronary heart disease, heart attack, peripheral arterial occlusion, stroke, proteinuria-associated kidney diseases, diabetes-related damage and/or **cardiovascular** complications with patients with diabetes mellitus, **cardiovascular** complications with patients with hypertension and **cardiovascular** complications with patients with hypercholesterolemia.

L16 ANSWER 9 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-28808 BIOTECHDS
TITLE: New 14171 **human protein kinase** and nucleic acids encoding the protein, useful for treating viral infections, cellular growth related disorders, cancers,

disorders related with programmed cell death, or autoimmune disorders;
vector-mediated protein-**kinase** gene transfer and **expression** in host cell for **recombinant** protein production, drug screening and gene therapy

AUTHOR: KAPELLER-LIBERMANN R
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: US 6630335 7 Oct 2003
APPLICATION INFO: US 2001-781882 12 Feb 2001
PRIORITY INFO: US 2001-781882 12 Feb 2001; US 2000-182096 11 Feb 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-810551 [76]

AB DERWENT ABSTRACT:

NOVELTY - An isolated nucleic acid molecule (I) comprising: (a) a sequence of 3860 or 2355 bp given in the specification, or its complement; or (b) a sequence which encodes a polypeptide comprising a sequence of 784 amino acids (II) or the sequence (II) having a substitution for aspartate at position 143, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a vector comprising (I); (2) a host cell comprising the vector; and (3) a method of producing a polypeptide comprising culturing the host cell of (2) under conditions in which the nucleic acid molecule is **expressed** to produce the polypeptide.

WIDER DISCLOSURE - (1) antibodies that selectively bind protein **kinase** polypeptide and fragments; (2) a method for detecting protein **kinase** activity of **expression** in a biological sample; (3) a method for modulating protein **kinase** activity; (4) a diagnostic assay for identifying the presence or absence of a genetic lesion for mutation characterized by aberrant modification or mutation of a gene encoding a protein **kinase**, misregulation of a gene encoding a protein **kinase**, or aberrant post-translational modification of a protein **kinase**; (5) a method for identifying a compound that binds to or modulates protein **kinase** activity; (6) a method for identifying compound that modulates the **expression** of a protein **kinase** gene; and (7) compound identified by the screening methods.

BIOTECHNOLOGY - Preferred Nucleic Acid: (I) further comprises nucleic acid sequences encoding a heterologous polypeptide. (I) comprises a sequence encoding a polypeptide comprising (II). Preferred Vector: The vector of comprises a nucleic acid sequence, which regulates **expression** of the nucleic acid molecule. Preferred Host Cell: The host cell is preferably a mammalian host cell.

ACTIVITY - Virucide; Hepatotropic; Cardiant; Hypotensive; Antianginal; Cytostatic; Neuroprotective; Nootropic; Antiparkinsonian; Anticonvulsant; Immunosuppressive; Antiinflammatory; Dermatological. Preferred Vector: The vector of comprises a nucleic acid sequence, which regulates **expression** of the nucleic acid molecule.

MECHANISM OF ACTION - Protein **Kinase**; Gene Therapy.

USE - The protein **kinase** or the nucleic acid encoding the protein is useful for modulating cellular growth, differentiation and/or development, and for modulating cellular metabolic pathways, particularly for regulating one or more proteins involved in growth and metabolism. (I) is also useful as primers or hybridization probes for detecting protein **kinase**-encoding nucleic acids, in tissue typing, chromosome mapping or forensic biology. These are also useful for treating viral infections (e.g. hepatitis B), cellular growth related disorders (e.g. heart failure, hypertension, atrial fibrillation, dilated and idiopathic cardiomyopathy or angina), **proliferative** or differentiative disorders such as cancer (e.g. liver, melanoma, prostate, cervical, breast, colon or sarcoma), disorders related with programmed cell death (e.g. Alzheimer's disease, Parkinson's disease or epilepsy), or autoimmune disorders (e.g. systemic lupus erythematosus).

ADMINISTRATION - Dosage is 0.001-30 mg/kg, preferably 1-10 mg/kg

body weight. Administration can be through parenteral (e.g. intravenous, intradermal, subcutaneous), oral (e.g. inhalation), transdermal (topical), transmucosal or rectal routes.
EXAMPLE - No suitable example given.(50 pages)

L16 ANSWER 10 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:1007140 HCAPLUS
DOCUMENT NUMBER: 140:55595
TITLE: **Human protein kinase** B (PKB) Ser473 **kinase** and therapeutic uses thereof
INVENTOR(S): Feng, Jianhua; Hemmings, Brian Arthur; Hill, Michelle Mei Chih
PATENT ASSIGNEE(S): Novartis Forschungsstiftung, Zweigniederlassung Friedrich Miescher Institute for Biomedical Research, Switz.
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106669	A1	20031224	WO 2003-EP6193	20030612

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2002-13614 A 20020613
AB The invention provides purified PKB Ser473 **kinase** and methods of purifying it. The methods involve the use of several sequential steps, including subcellular fractionation to isolate a plasma membrane fraction and the use of gel filtration or chromatog. that separates mols. according to their size or affinity.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 11 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:951182 HCAPLUS
DOCUMENT NUMBER: 140:13760
TITLE: Sequences of a **human protein kinase** sequence homolog and uses in diagnosis, therapy and drug screening
INVENTOR(S): Liou, Jiing-Ren
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003100046	A1	20031204	WO 2003-EP5349	20030522

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,
MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-382605P P 20020524
US 2002-394249P P 20020709
US 2002-403388P P 20020815

AB The invention provides protein and cDNA sequences of a novel **human protein kinase** sequence homolog. The invention also provides reagents and methods of regulating a **human protein kinase** sequence homolog. Reagents that regulate **human protein kinase** and reagents which bind to **human protein kinase** gene products can play a role in preventing, ameliorating, or correcting dysfunctions or diseases including **cardiovascular** disorders, cancer, diabetes, peripheral and central nervous system disorders, hematol. disorders, genitourol. disorders, and COPD.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 12 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:551621 HCAPLUS
DOCUMENT NUMBER: 139:129924
TITLE: CRISSP method for detecting remote sequence homologs, **human protein kinase** sequences identified with the method, and diagnostic and drug screening uses
INVENTOR(S): Grigoriev, Igor Vyacheslavovich; Sudarsanam, Sucha
PATENT ASSIGNEE(S): Sugen Inc., USA
SOURCE: PCT Int. Appl., 491 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057841	A2	20030717	WO 2002-US41687	20021231
WO 2003057841	C1	20040401		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004009549	A1	20040115	US 2002-334143	20021231
WO 2004069154	A2	20040819	WO 2003-US2234	20030128

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,

UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-343169P P 20011231

AB The present invention relates to novel methods for detecting remote polypeptide homologs comprising anal. of conserved secondary structure pattern in a protein family, and conserved active site amino acid residues. The anal. are used to identify conserved residues embedded into the secondary structure pattern (CRISSP), which are used to detect remote homologs of the referent protein family. The present invention also relates to **human protein kinases** and protein **kinase**-like enzymes, nucleotide sequences encoding the protein **kinase** polypeptides, as well as various products and methods useful for the diagnosis and treatment of various protein **kinase** -related diseases and conditions. The CRISSP method has been applied to the **human** genome database and 87 novel **kinase** sequences have been identified. The partial or complete sequences of these **kinases** are provided together with their classification, predicted protein structure, and encoding nucleotide sequences. Through the use of a bioinformatics strategy, mammalian protein **kinases** have been identified and their protein structure predicted.

L16 ANSWER 13 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:991157 HCAPLUS
DOCUMENT NUMBER: 140:35917
TITLE: Antisense oligonucleotides inhibiting **human protein kinase** DRAK1 **expression** and their therapeutic uses
INVENTOR(S): Bennett, C. Frank; Freier, Susan M.; Dobie, Kenneth W.
PATENT ASSIGNEE(S): Isis Pharmaceuticals Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 56 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003232773	A1	20031218	US 2002-174559	20020617

PRIORITY APPLN. INFO.: US 2002-174559 20020617

AB Antisense compds., compns. and methods are provided for inhibiting the **expression** of **human protein kinase** DRAK1. The compns. comprise antisense compds., particularly antisense oligonucleotides, targeted to nucleic acids encoding protein **kinase** DRAK1. Methods of using these compds. for modulation of protein **kinase** DRAK1 **expression** and for treatment of diseases associated with **expression** of protein **kinase** DRAK1 are provided. Antisense oligonucleotides were designed targeting different regions of the protein **kinase** DRAK1 mRNA sequence and may be modified to contain phosphorothioate linkages, 2'-O-methoxyethyl sugar moiety, and 5-methylcytosine bases. The antisense oligonucleotides demonstrated at least 35% inhibition of **human protein kinase** DRAK1 **expression**. The invention provides methods for synthesis of the antisense oligonucleotides. The antisense oligonucleotides could be used for treatments of hyperproliferative disease, cancer, aberrant apoptosis, and neurol. disease.

L16 ANSWER 14 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:551171 HCAPLUS
DOCUMENT NUMBER: 139:95471

TITLE: Methods using protein **kinase** C (PKC)-δ and -ε inhibitors for inhibiting cardiac disorders
INVENTOR(S): Steinberg, Susan F.; Sabri, Abdelkarim
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 34 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003134774	A1	20030717	US 2002-172696	20020614
PRIORITY APPLN. INFO.:			US 2001-298509P P	20010615

AB The invention provides methods for (1) inhibiting the onset of a cardiac disorder in a subject afflicted with cardiac hypertrophy, (2) reducing the activity of PKC-δ or PKC-ε present in cardiomyocytes of a subject afflicted with cardiac hypertrophy, and (3) reducing the activity of PKC-δ or PKC-ε in a hypertrophic cardiomyocyte by administering an agent that specifically reduces the activity of PKC-δ or PKC-ε present therein. The invention also provides an article of manufacture inhibiting the onset of a cardiac disorder in a subject afflicted with cardiac hypertrophy.

L16 ANSWER 15 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:92356 HCAPLUS
DOCUMENT NUMBER: 138:148735
TITLE: Protein and cDNA sequences of **human protein kinase** JNK1 and JNK2 and use
INVENTOR(S): Karin, Michael; Hibi, Masahiko; Lin, Anning; Davis, Roger; Derijard, Benoit
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: U.S., 87 pp., Cont.-in-part of U.S. 5,534,426.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6514745	B1	20030204	US 1994-220602	19940325
US 5534426	A	19960709	US 1993-94533	19930719
CA 2167302	AA	19950202	CA 1994-2167302	19940718
WO 9503323	A1	19950202	WO 1994-US8119	19940718
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
WO 9503324	A1	19950202	WO 1994-US8120	19940718
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9473380	A1	19950220	AU 1994-73380	19940718
AU 700137	B2	19981224		
AU 9473668	A1	19950220	AU 1994-73668	19940718
AU 685484	B2	19980122		
EP 726908	A1	19960821	EP 1994-923544	19940718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				

EP 728143	A1	19960828	EP 1994-922622	19940718
EP 728143	B1	20030305		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5593884	A	19970114	US 1994-276860	19940718
JP 09500535	T2	19970121	JP 1995-505263	19940718
JP 2986548	B2	19991206		
JP 09507384	T2	19970729	JP 1995-505262	19940718
JP 2925740	B2	19990728		
JP 2000023681	A2	20000125	JP 1999-139329	19940718
CA 2166981	C	20001107	CA 1994-2166981	19940718
AT 233785	E	20030315	AT 1994-922622	19940718
PT 728143	T	20030630	PT 1994-922622	19940718
ES 2191032	T3	20030901	ES 1994-922622	19940718
US 5605808	A	19970225	US 1995-444393	19950519
US 5837244	A	19981117	US 1996-711893	19960912
US 5804399	A	19980908	US 1997-799913	19970213
US 5994513	A	19991130	US 1998-150200	19980908
US 6001584	A	19991214	US 1998-150201	19980908
US 6193965	B1	20010227	US 1999-452370	19991130
US 6342595	B1	20020129	US 1999-461649	19991214
US 2002192218	A1	20021219	US 2001-861097	20010518
US 2003044788	A1	20030306	US 2001-861098	20010518
US 2003190735	A1	20031009	US 2001-861012	20010518
US 6706509	B2	20040316		
US 2002160397	A1	20021031	US 2002-51989	20020116
US 6610505	B2	20030826		

PRIORITY APPLN. INFO.:	US 1993-94533	A2 19930719
	US 1994-220602	A 19940325
	JP 1995-505263	A3 19940718
	US 1994-276860	A3 19940718
	WO 1994-US8119	W 19940718
	WO 1994-US8120	W 19940718
	US 1995-444393	A1 19950519
	US 1997-799913	A3 19970213
	US 1998-150200	A3 19980908
	US 1998-150201	A1 19980908
	US 1999-461649	A1 19991214

AB The present invention provides protein and cDNA sequences of a novel **human protein kinase** (JNK) which phosphorylates the c-Jun N-terminal activation domain. JNK1 is characterized by having a mol. weight of 46 kD (as determined by reducing SDS-polyacrylamide gel electrophoresis (PAGE)) and having serine and threonine **kinase** activity. Specifically, JNK1 phosphorylates serine residues 63 and 73 of c-Jun. Since the product of the jun proto-oncogene is a transactivator protein which binds at AP-1 sites, regulation of c-Jun activation may be important in affecting normal gene **expression** and growth control in a cell. The discovery of JNK provides a means for identifying compns. which affect JNK activity, thereby affecting c-Jun activation and subsequent activation of genes associated with AP-1 sites. The identification of JNK now allows the detection of the level of specific **kinase** activity associated with activation of c-Jun and AP-1. In addition, the invention provides a method of treating a cell **proliferative** disorder associated with JNK by administering to a subject with the disorder, a therapeutically effective amount of a reagent which modulates JNK activity. The invention also provides a synthetic peptide comprising the JNK binding region on c-Jun which corresponds to amino acids 33-79. The peptide is useful as a competitive inhibitor of the naturally occurring c-Jun in situations where it is desirable to decrease the amount of c-Jun activation by JNK. The invention also describes JNK2, a novel protein **kinase** with activity similar to JNK1 and having a mol. weight of 55 kD.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 16 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:44715 HCAPLUS
DOCUMENT NUMBER: 138:285793
TITLE: Different regulation of PKC isoenzymes and MAPK by PSK and IL-2 in the **proliferative** and cytotoxic activities of the NKL **human** natural killer cell line
AUTHOR(S): Garcia-Lora, Angel; Martinez, Marisol; Pedrinaci, Susana; Garrido, Federico
CORPORATE SOURCE: Hospital Universitario Virgen de las Nieves, Servicio de Analisis Clinicos e Inmunologia, Universidad de Granada, Granada, 18014, Spain
SOURCE: Cancer Immunology Immunotherapy (2003), 52(1), 59-64
CODEN: CIIMDN; ISSN: 0340-7004
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The activation of natural killer (NK) cells and induction of cytotoxicity are complex processes whose mol. mechanisms have not been clearly elucidated. Stimulation of the NKL **human** NK cell line with interleukin-2 (IL-2) or protein-bound polysaccharide K (PSK) leads to sustained growth and cytolytic activity in comparison to unstimulated NKL cells. The authors' previous results shown that IL-2 and PSK regulate different nuclear transcription factors in NKL cells, and that the signal transduction pathway used by these inducers is different. To determine the mol. basis for the different action of IL-2 and PSK, the authors investigated the upstream effects generated in **human** NKL cells by IL-2 and PSK on protein **kinase** C (PKC) isoenzymes and mitogen-activated protein **kinases** (MAPK). Here they report the profile of unstimulated NKL cells as: PKCβ> PKCα> PKCδ = PKCε. The PKCη form was not **expressed**. The effects of PSK and IL-2 on these isoenzymes were different. IL-2 increased the **expression** of PKCα, PKCδ, and PKCε, whereas PSK decreased the **expression** of PKCα, and also increased PKCδ and PKCε to higher levels than did IL-2. In MAPK **expression** the authors found that unstimulated NKL cells have the following profile: ERK2> ERK6> p38γ> p38β> ERK1. ERK3, ERK3 rel, ERK5/ERK4 and p38δ were not **expressed**. IL-2 decreased the **expression** of ERK2, whereas PSK did not, and both agents increased the **expression** of ERK3. Thus, PSK and IL-2 produce different variations in PKC isoenzymes and MAPK in NKL cells.
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 17 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
DUPLICATE 1
ACCESSION NUMBER: 2003-06738 BIOTECHDS
TITLE: New **human protein kinase**-like polypeptide for treating, preventing or ameliorating cancer, central nervous system disorders, obesity, diabetes, **cardiovascular** disorders and chronic obstructive pulmonary disease;
plasmid-mediated **recombinant** protein gene transfer and **expression** in Pichia pastoris for disease diagnosis and gene therapy
AUTHOR: SMOLYAR A
PATENT ASSIGNEE: BAYER AG
PATENT INFO: WO 2002081704 17 Oct 2002
APPLICATION INFO: WO 2002-EP2887 15 Mar 2002
PRIORITY INFO: US 2001-337124 10 Dec 2001; US 2001-276055 16 Mar 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-040700 [03]
AB DERWENT ABSTRACT:

NOVELTY - A purified **human protein kinase**-like polypeptide (I) comprising a sequence (S1) of 286 or 1394 amino acids, given in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) an isolated polynucleotide (II) consisting of: (i) a polynucleotide encoding a protein **kinase**-like polypeptide comprising S1 or a sequence having 35 % identity to S1; (ii) a polynucleotide sequence (S2) comprising 858, 5475 or 4216 nucleotides, given in the specification; (iii) a polynucleotide which hybridizes under stringent conditions to the (i) or (ii); (iv) a polynucleotide which deviates from (i) - (iii) due to degeneration of genetic code; or (v) fragments, derivatives or allelic variants of (i) - (iv); (2) an **expression** vector (III) comprising (II); (3) a host cell (IV) containing (III); (4) a substantially purified **human protein kinase**-like polypeptide, encoded by (II); (5) producing (I); (6) detecting (M1) (I) or (II), by contacting a biological sample with a reagent which specifically interacts with (I) or (II); (7) a diagnostic kit for conducting M1; (8) reducing (M2) the activity of (I), by contacting a cell with a reagent which specifically binds to (I) or (II); (9) a reagent (R) that modulates the activity of (I) or (II), identified using (I) or (II); (10) a pharmaceutical composition (PC) comprising (III) or (R); (11) a cDNA encoding (I); (12) a fusion protein (VI) comprising (I); (13) detecting (M3) a coding sequence for (I), by hybridizing a polynucleotide comprising 11 contiguous nucleotides of S2 to nucleic acid material of a biological sample, thus forming a hybridization complex, and detecting the complex; (14) detecting (M4) a polypeptide comprising S1, by contacting a biological sample with a reagent that specifically binds to the polypeptide to form a complex and detecting the complex; (15) a kit (K1) for detecting a coding sequence for (I) comprises a polynucleotide comprising 11 contiguous nucleotides of S2, and instructions for use; (16) a kit (K2) for detecting (I) comprises an antibody which specifically binds to (I), and instructions for use; and (17) screening for agents which can modulate the activity of **human protein kinase**-like protein, by contacting the test compound with a polypeptide comprising S1 or a sequence having 35 % identity to S1, and detecting the binding of test compound to (I) or detecting the activity of the polypeptide.

WIDER DISCLOSURE - Variants of (I) are also disclosed.

BIOTECHNOLOGY - Preparation: (I) is produced by culturing (IV) under conditions suitable for the **expression** of (I) and recovering (I) from the host cell culture (claimed). Preferred Method: In M2, the product is a polypeptide or RNA. (R) is an antibody, antisense oligonucleotide or a ribozyme, and the cell is in vitro or in vivo. M3 further comprises amplifying the nucleic acid material before hybridization. In M4, the reagent is an antibody.

ACTIVITY - Cytostatic; Neuroprotective; Anorectic; Cardiant; Antidiabetic. The ability of **human protein kinase**-like antisense oligonucleotides to suppress the growth of cancer cell line such as **human** colon cancer cell line HCT116 was tested. Cells were cultured in RPMI-1640 with 10-15 % fetal calf serum at a concentration of 10000 cells per ml in a volume of 0.5 ml and kept at 37 degreesC in a 95 % air/5 %/CO2 atmosphere. Phosphorothioate oligoribonucleotides were synthesized using phosphoroamidite chemistry. A sequence of 24 bases complementary to the nucleotides at position 1 - 24 of a sequence comprising 858, 5475 or 4216 nucleotides, given in the specification, was used as the test oligonucleotide. As a control, another (random) sequence 5'-tcaactgactagatgtacatggac-3' was used. The oligonucleotides were added to the culture medium at a concentration of 10 microM once per day for seven days. The addition of the test oligonucleotide for seven days resulted in significantly reduced **expression** of **human protein kinase**-like as determined by Western blotting. This effect was not observed with the control oligonucleotide. After 3 - 7 days, the number of cells in the cultures were counted. The number of cells in cultures treated

with the test oligonucleotide was compared with the number of cells in cultures treated with the control oligonucleotides. The results showed that the number of cells in cultures treated with the test oligonucleotide was not more than 30 % of control, indicating that the inhibition of **human protein kinase**-like had an anti-**proliferative** effect on cancer cells.

MECHANISM OF ACTION - Protein **kinase** modulator (claimed); Gene therapy.

USE - Nucleic acid (II) encoding (I) is useful for detecting a polynucleotide encoding (I) in a biological sample. (I) and (II) are useful for screening for agents which decrease or modulate the activity of **human protein kinase**-like polypeptide. A pharmaceutical composition (PC) comprising an **expression** vector (III) containing (II) or a reagent (R) that modulates the activity of (I) or (II), is useful for the preparation of a medicament for modulating the activity of **human protein kinase**-like in a disease such as cancer, central nervous system (CNS) disorder, chronic obstructive pulmonary disease (COPD), obesity, diabetes and **cardiovascular** disorder. (R) is useful for reducing the activity of **human protein kinase**-like protein, and for detecting (I). (R) is also useful for treating a **human protein kinase**-like dysfunction related disease including cancer, CNS disorder, COPD, obesity, diabetes and **cardiovascular** disorder. (I) (encoded by (II)) is useful for screening for agents which modulate an activity of **human protein kinase**-like protein (all claimed). (I) is useful for treating the above mentioned disorders and to screen for **human protein kinase**-like activators and inhibitors. (I) or (II) is useful for identifying test compounds which act as agonists or antagonists, for raising specific antibodies, and as a bait protein in a two-hybrid or three-hybrid assay. (II) is useful in diagnostic assays for detecting diseases and abnormalities or susceptibility to disease and abnormalities related to the presence of mutations in (II). A fusion protein (VI) comprising (I) is useful for generating antibodies against (I) and in various assay systems.

ADMINISTRATION - Administered through oral, intravenous, intramuscular, intra-arterial, intramedullary, intrathecal, intraventricular, transdermal, subcutaneous, intraperitoneal, intranasal, parenteral, topical, sublingual or rectal routes. Dosage is 0.1 micrograms - 100 mg, up to a total dose of 1 g.

EXAMPLE - Pichia pastoris **expression** vector pPICZB was used to produce large quantities of **recombinant human protein kinase**-like polypeptides in yeast. The protein **kinase**-like protein-encoding DNA sequence was derived from a sequence comprising 858, 5475 or 4216 nucleotides, fully defined in the specification. Before insertion into vector pPICZB, the DNA sequence was modified to contain at its 5'-end, an initiation codon and at its 3'-end an enterokinase cleavage site, His6 reporter tag and a termination codon. Moreover, at both termini, recognition sequences for restriction endonucleases were added and after digestion of the multiple **cloning** site of pPICZB with the corresponding restriction enzymes, the modified DNA sequence was ligated into pPICZB. This **expression** vector was designed for inducible **expression** in P. pastoris, driven by a yeast promoter. The resulting pPICZ/md-His6 vector was used to transform the yeast. The yeast was cultivated under usual conditions in 5 liter shake flasks and the recombinantly produced protein was isolated from the culture by affinity chromatography (Ni-NTA-Resin) in the presence of 8 M urea. The bound polypeptide was eluted with buffer, pH 3.5, and neutralized. Separation of the polypeptide from the His6 reporter tag was accomplished by site-specific proteolysis using enterokinase. Purified **human protein kinase**-like polypeptide was obtained. (143 pages)

ACCESSION NUMBER: 2003-01162 BIOTECHDS
TITLE: Novel **human protein kinase** polypeptide, designated 58848, useful for treating diseases including cellular **proliferative**, bone metabolism, **cardiovascular**, neurological, and hematopoietic neoplastic disorders;
vector-mediated **recombinant** protein gene transfer and **expression** in mammal cell for use in drug screening, gene therapy, pharmacogenetics, mapping and forensics
AUTHOR: KAPELLER-LIBERMANN R; ACTON S
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: WO 2002055713 18 Jul 2002
APPLICATION INFO: WO 2001-US44346 26 Nov 2001
PRIORITY INFO: US 2000-254401 8 Dec 2000; US 2000-254401 8 Dec 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-590676 [63]
AB DERWENT ABSTRACT:

NOVELTY - **Human protein kinase** polypeptide (I), designated 58848, having a polypeptide encoded by polynucleotide having 80 % identity to a 1247 or 1047 base pair sequence (S1)/its complement, naturally occurring allelic variant of a 348 residue amino acid sequence (S2), both given in the specification, and encoded by polynucleotide that hybridizes to S1/its complement, or fragment of S2 having 15 contiguous amino acids, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: (1) isolated nucleic acid molecule (II) encoding (I) or a polypeptide comprising S2 and comprising a fragment of at least 300 nucleotides of S1; (2) a host cell (III) containing (II); (3) a non-**human** mammalian host cell (IV) containing (II); (4) an antibody (V) which selectively binds to (I); (5) producing (I), comprising culturing (III) under **expression** conditions, and recovering the polypeptide; (6) detecting (M1) the presence of (I) in a sample, comprising contacting the sample with a compound which selectively binds to (I), and determining if the compound binds to (I); (7) detecting (M2) the presence of (II) in a sample, comprising contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule, and determining if the nucleic acid probe or primer binds to a nucleic acid molecule in the sample; (8) a kit (VI) comprising a compound which selectively binds to (I) or selectively hybridizes to (II) and instructions for use; (9) identifying (M3) a compound which binds to (I), by contacting (I), or a cell **expressing** (I) with a test compound, and determining if (I) binds to the test compound; and (10) modulating (M4) the activity of (I) by contacting (I) or a cell **expressing** (I) with a compound which binds to (I) in a sufficient concentration to modulate the activity of (I).

WIDER DISCLOSURE - (1) nucleic acid constructs that includes (II); (2) vectors containing (II); (3) isolated nucleic acid molecules that are antisense to (II); (4) an amino acid sequence that is substantially identical to S2; (5) 58848 polypeptides or fragments operatively linked to non-58848 polypeptides to form fusion proteins; (6) fragments of (V); (7) an isolated nucleic acid molecule complement to (S1); (8) nucleic acid molecules encoding other 58848 family members having a nucleotide sequence which differs from (I); (9) labeled or molecular beacon oligonucleotide primer and probe molecules; (10) non-**human** transgenic animals, useful for studying the function and/or activity of a 58848 protein and for identifying modulators of 58848 activity; (11) population of cells from the transgenic animals of (10); (12) novel agents identified by screening assays using (I); and (13) kits for detecting the presence of 58848 in a sample.

BIOTECHNOLOGY - Preparation: (I) is produced by culturing a mammalian host cell under conditions in which the nucleic acid molecule is **expressed** (claimed). Preferred Polypeptide: (I) further

comprises heterologous amino acid sequences. Preferred Nucleic Acid: (II) further comprises vector nucleic acid sequences or a nucleic acid sequences encoding a heterologous polypeptide. Preferred Method: In M1, the compound which binds to (I) is an antibody. In M2, the sample comprises mRNA molecules and is contacted with a nucleic acid probe. In M3, the binding of the test compound to the polypeptide is detected by detection of binding by direct detecting of test compound/polypeptide binding, using a competition binding assay, and using an assay for 58848-mediated activation of protein **kinase** activity.

ACTIVITY - Cytostatic; Antidiabetic; Immunosuppressive; Antiatherosclerotic; Hypotensive; Cardiant; Vasotropic; Nootropic; Neuroprotective; Anticonvulsant; Antibacterial; Hepatotropic; Virucide; Antiinflammatory; Anti-HIV (**human** immunodeficiency virus); Endocrine; Anti-Parkinsonian; Osteopathic.

MECHANISM OF ACTION - Modulator of activity of (I) (claimed); Gene therapy. No biological data is given.

USE - (I) is useful for identifying a compound which modulates the activity of (I), by contacting (I) with a test compound, and determining the effect of the test compound on the activity of (I). (I) is useful for identifying a compound which binds to (I). (All claimed). (I) is useful for modulating 58848-mediated activities which are useful for developing diagnostic and therapeutic agents for protein **kinase** associated or other 58848-associated disorders such as cellular **proliferative** and/or differentiate disorders e.g. cancer, leukemia; hormonal disorders e.g. diabetes; immune disorders e.g. autoimmune disease; blood vessel disorders e.g. atherosclerosis, hypertension; platelet disorders; **cardiovascular** disorders e.g. cardiac hypertrophy, heart failure; neurological disorders e.g. ischemia, Alzheimer's disease, Parkinson's disease, Huntington's disease, acquired immunodeficiency syndrome (AIDS); bone metabolism disorders e.g. rickets, osteoporosis, cirrhosis; hematopoietic neoplastic disorders e.g. Hodgkin's disease, acute leukemia; liver disorders e.g. Gaucher's disease, viral diseases e.g. Hepatitis B; pain or metabolic disorder e.g. inflammation, hyperalgesia. (I) is useful for producing antibodies which are useful for isolating and detecting 58848 polypeptides, for modulating 58848 activity and diagnostically to monitor protein levels in tissues. (I) is useful as bait proteins in a two-hybrid or three-hybrid assay. (I) is also useful for treating disorders where there is excessive or insufficient production of 58848 substrate, producing 58848 inhibitors and for screening drugs or compounds which modulate 58848 activity which are useful in an appropriate animal model to determine the efficacy, toxicity, side effects or mechanism of action of treatment with the drugs. (II) is useful for **expressing** a 58848 protein, for detecting a 58848 mRNA or a genetic alteration in the gene and to modulate 58848 activity. Fragments of (II) are useful in chromosome mapping, tissue typing and in forensic identification of a biological sample. 58848 molecules are useful in screening assays, predictive medicine (e.g. diagnostic assays, prognostic assays, monitoring clinical trails, and pharmacogenetics), and methods of treatment (e.g. therapeutic and prophylactic). 58848 molecules are useful as markers of disorders or disease states, as markers of drug activity, or as markers of the pharmacogenomic profile of the subject.

ADMINISTRATION - (I) is administered at a dose of 0.001-30, preferably 1-10 mg/kg and (V) is administered at a dose of 0.1 mg/kg, by intravenous, intradermal, oral (e.g. inhalation), transdermal (topical), transmucosal or rectal route. (104 pages)

L16 ANSWER 19 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-12936 BIOTECHDS
TITLE: Novel isolated **human protein kinase**, designated 59079 or 12599 polypeptide, useful as diagnostic and therapeutic agents for preventing **cardiovascular** diseases, **proliferative** disorders, and protein **kinase** disorders;

recombinant protein production and sense and antisense sequence for use in gene therapy

AUTHOR: KAPELLER-LIBERMANN R; ACTON S L
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: US 2002168742 14 Nov 2002
APPLICATION INFO: US 2002-77130 15 Feb 2002
PRIORITY INFO: US 2002-77130 15 Feb 2002; US 2001-269201 15 Feb 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-298729 [29]

AB DERWENT ABSTRACT:

NOVELTY - An isolated **human protein kinase**, 59079 or 12599 polypeptide (I), encoded by nucleic acid molecule comprising at least 85 % identity to a 8106, 7893, 24120 or 23907 nucleotide sequence (S1), given in the specification, or its complement, a naturally occurring variant of polypeptide having a 2630 or 7968 amino acid sequence (S2), given in the specification, or its fragment, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) an isolated nucleic acid molecule (II) comprising a sequence having at least 85 % identity to S1, a sequence comprising a fragment of at least 300 nucleotides of S1, a sequence encoding (I), or a nucleic acid molecule which encodes a complement of the above, under stringent conditions; (2) a host cell (III), preferably non-**human** mammalian host cell containing (II); (3) producing (I); (4) an antibody (Ab) which selectively binds (I); (5) detecting the presence of (II) in a sample, by contacting the sample with nucleic acid probe or primer (P) which selectively hybridizes to (II), and determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample; (6) a kit (IV) comprising a compound which selectively binds (I) or a compound which selectively hybridizes to (II), and instructions for use; (7) identifying a compound which binds to (I), by contacting (I) or a cell **expressing** (I) with a test compound and determining whether (I) binds to the test compound; and (8) modulating the activity of (I), by contacting (I) or a cell **expressing** (I) with a compound which binds to (I) in a sufficient concentration to modulate the activity of (I).

WIDER DISCLOSURE - (1) an isolated nucleic acid molecule antisense to (II); (2) nucleic acid constructs or vectors including (II); (3) a two-dimensional array having a number of addresses, each having a unique capture probe; (4) molecular beacon oligonucleotide primer and probe molecules; (5) assays for determining a genetic alteration in (I) or (II); (6) analyzing a sample by contacting the sample with the above array and detecting binding of the sample to the array; (7) detectably labeled 59079 or 12599 probes and primers; (8) 59079 or 12599 chimeric or fusion proteins; (9) non-**human** transgenic animals comprising (II), and a population of cells from the transgenic animal; (10) novel agents identified by the screening methods; (11) determining if a subject is at a risk for a disorder related to a lesion in or the misexpression of a gene encoding 59079 or 12599; (12) monitoring the influence of agents (e.g. drugs) on the **expression** or activity of 59079 or 12599 protein; (13) analyzing a number of capture probes, and analyzing 59079 or 12599, e.g. structure, function or relatedness to other nucleic acid or amino acid sequences; (14) a set of oligonucleotides for identifying single nucleotide polymorphism; (15) a computer readable record of a 59079 or 12599 sequence that includes recording the sequence on a computer-readable matrix; (16) making the above computer readable record; (17) a medium for holding instructions for performing a method for determining whether the subject has a protein **kinase** receptor-associated or another 59079 or 12599-associated disease or disorder, preferably in an electronic system or in a network; (18) a business method for determining whether the subject has a protein **kinase** receptor-associated or another 59079 or 12599-associated disease or disorder; and (19) an array comprising a 59079 or 12599 sequence.

BIOTECHNOLOGY - Preparation: (I) is produced by culturing (III) under conditions in which (II) is **expressed** (claimed).
Preferred Method: The sample comprises mRNA molecules, and is contacted with a nucleic acid probe. Binding of test compound with (I) is detected by direct binding of test compound/polypeptide binding, detection of binding using a competition binding assay and a detection of binding using an assay for 59079- or 12599-mediated signal transduction.
Preferred Sequence: (I) further comprises heterologous amino acid sequences. (II) further comprises vector nucleic acid sequences and a nucleic acid sequence encoding the heterologous polypeptide.

ACTIVITY - Cardiant; Antiatherosclerotic; Cytostatic; Anti-HIV; Hemostatic; Immunosuppressive; Antianemic; Antidiabetic; Antipsoriatic; Antiinflammatory; Antirheumatic; Antiarthritic; Neuroprotective.

MECHANISM OF ACTION - Gene therapy; modulator of **expression** or activity of 59079 or 12599 molecules. No biological data is given.

USE - Ab is useful for detecting the presence of (I) in a sample. (I) is useful for identifying a compound which modulates the activity of (I). (All claimed.) (I) and (II) are useful as diagnostic and therapeutic agents for preventing a disease or condition associated with an aberrant or unwanted 59079 or 12599 activity in a subject, including **cardiovascular** diseases such as heart failure, and myocardial infarction; disorders involving blood vessels such as atherosclerosis, and Kaposi's sarcoma; blood platelets disorder such as thrombocytopenia, leukemia, Hodgkin's disease, hemolytic anemia; cellular **proliferative** disorders such as cancer; and protein **kinase** disorders such as autoimmune disorders, diabetes mellitus, psoriasis, inflammatory bowel disease, rheumatoid arthritis, and multiple sclerosis. (I), (II) and Ab are useful in screening assays, detection assays (e.g. forensic biology), and predictive medicine (e.g. diagnostic assays, prognostic assays, and monitoring clinical trials and pharmacogenomics). (I) and Ab are useful as reagents for diagnosing and treating 59079 or 12599-mediated disorders. (I) and (II) are useful as query sequences to perform a search against public databases to identify other family members or related sequences. (I) is useful as an immunogen to generate Ab, and as a bait protein in yeast two-hybrid or three-hybrid assay to identify other proteins which bind to or interact with 59079 or 12599. (II) is useful as hybridization probe to identify (II), or as polymerase chain reaction (PCR) primer for the amplification or mutation of (II). (II) is useful in gene therapy, to **express** (I), to detect 59079 or 12599 mRNA or a genetic alteration in a 59079 or 12599 gene, and to modulate 59079 or 12599 activity. (II) is useful in chromosome mapping, to identify an individual from a minute biological sample (tissue typing), and to aid in forensic identification of the biological sample. Ab is useful to isolate and purify (I), to detect (I) and to diagnostically monitor protein levels in tissue as part of a clinical testing procedure. Fragments of (II) are useful as hybridization probes and primers. (I) and (II) are useful as markers of disorders or disease states, drug activity and pharmacogenomic profile of a subject. (IV) is useful for producing non-**human** transgenic animals.

ADMINISTRATION - (I) is administered at a dose of 0.001-30, preferably 5-6 mg/kg, through parenteral, oral, transdermal, systemic, transmucosal or rectal route.

EXAMPLE - None given. (119 pages)

L16 ANSWER 20 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2002-17073 BIOTECHDS
TITLE: A new **human protein kinase** designated H2LAU20 is useful to treat diseases associated with the polypeptide such as bone loss including osteoporosis, and inflammatory, **cardiovascular** and neurological diseases;
recombinant protein-**kinase** production for use in therapy
AUTHOR: BRUN K A; CREASY C L; DUNNINGTON D J

PATENT ASSIGNEE: SMITHKLINE BEECHAM CORP
PATENT INFO: US 6365389 2 Apr 2002
APPLICATION INFO: US 1998-421491 31 Jul 1998
PRIORITY INFO: US 1999-421491 20 Oct 1999
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-424656 [45]
AB DERWENT ABSTRACT:
NOVELTY - An isolated polypeptide which has H2LAU20 activity, and comprises a sequence (I) which is at least 70% identical to a fully defined 620 amino acid sequence given in the specification, is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated polypeptide which is or comprises (I).
WIDER DISCLOSURE - H2LAU20 polynucleotides and **recombinant** polypeptide production methods are disclosed.
BIOTECHNOLOGY - Preparation: The polypeptide is prepared using standard **recombinant** techniques.
ACTIVITY - Antiinflammatory; Antimicrobial; Analgesic; Cytostatic; Cardiant; Neuroprotective; Osteopathic; Antirheumatic; Antipsoriatic; Dermatological; Antiasthmatic; Antidiabetic; Anti-HIV; Immunosuppressive; Antiulcer; Nootropic; Anticonvulsant; Neuroleptic. No biological data given.
MECHANISM OF ACTION - Signal transduction .
USE - The polypeptide is used to treat bone loss including osteoporosis, inflammatory diseases such as adult respiratory disease syndrome, rheumatoid arthritis, osteoarthritis, inflammatory bowel disease, psoriasis, dermatitis, asthma, and allergies, diabetes and associated disorders, infections, particularly HIV, immunodeficiency disorders, septic shock, pain, injury, cancers including testicular cancer, Parkinson's disease, **cardiovascular** disease, ulcers, benign prostatic hypertrophy, psychotic and neurological disorders,, and dyskensias such as Huntington's disease or Gilles de la Tourette's syndrome (disclosed).
ADMINISTRATION - Administration is parenteral e.g. subcutaneous, intramuscular; intravenous or intradermal. Dosage is 0.1-100microg/kg.
EXAMPLE - No suitable example given.(9 pages)

L16 ANSWER 21 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2002-11643 BIOTECHDS
TITLE: New antisense oligonucleotide having nucleoside units which specifically binds mRNA encoding **human** **protein kinase** C isoform, useful for treating hyperproliferative and inflammatory diseases e.g. psoriasis, tumor and cancer;
enzyme isoform gene **expression** inhibition for glioblastoma, bladder cancer, mamma cancer, lung cancer, colon cancer diagnosis and therapy
AUTHOR: BENNETT C F; DEAN N M; COOK P D; HOKE G
PATENT ASSIGNEE: ISIS PHARM INC
PATENT INFO: US 6339066 15 Jan 2002
APPLICATION INFO: US 1990-829637 11 Jan 1990
PRIORITY INFO: US 1997-829637 31 Mar 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-215022 [27]
AB DERWENT ABSTRACT:
NOVELTY - An antisense oligonucleotide (I) having up to 50 nucleoside units which specifically binds mRNA encoding a **human** **protein kinase** C (PKC) isoform selected from PKC-beta I, PKC-beta II, PKC-gamma, PKC-delta, PKC-epsilon, PKC-zeta, and PKC-eta, where (I) inhibits PKC isoform **expression**, and at least about 75% of nucleoside units of (I) is joined together by stereospecific (Sp or Rp) phosphorothioate 3' to 5' linkages, is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a

pharmaceutical composition (II) comprising (I), preferably two or more of (I).

BIOTECHNOLOGY - Preferred Oligonucleotide: In (I), all of the nucleoside units are joined together by Sp or Rp phosphorothioate 3' to 5' linkages.

ACTIVITY - Cytostatic; antitumor; antipsoriatic; antiinflammatory. Effect of antisense oligonucleotide ISIS 3521 (GTTCTCGCTGGTGAGTTTCA) on the growth of **human** A549 lung tumor cells in nude mice was tested: The **human** lung carcinoma cell line 549 was grown in Dulbecco's modified Eagle's Medium. Cells were trypsinized and washed and resuspended in the same medium for introduction into mice. 200 micro liter of A549 cells (5 x 10 to the power of 6 cells) were implanted subcutaneously in the inner thigh of nude mice. ISIS 3521, a phosphorothioate oligonucleotide was administered twice weekly for 4 weeks, beginning one week following tumor cell inoculation. Oligonucleotides were formulated with cationic lipids and given subcutaneously in the vicinity of the tumor. Oligonucleotide dosage was 5 mg/kg with 60 mg/kg cationic lipid. Tumor size was recorded weekly. The results showed that tumor growth was almost completely inhibited in two of the three mice, and reduced compared to a control oligonucleotide ISIS 1082 (a 21-mer phosphorothioate oligonucleotide without significant sequence homology to the protein **kinase** C (PKC) mRNA target) in a third mouse. This inhibition of tumor growth by ISIS 3521 was statistically significant.

MECHANISM OF ACTION - Inhibitor of **expression** of PKC isoforms (claimed).

USE - (I) is useful for modulating the **expression** of the PKC isoforms and for treating animals suffering from disease amenable to therapeutic intervention by modulating the **expression** of the PKC isoform. (I) is useful as diagnostics, therapeutics, research reagents and kits. (I) is useful for treating hyperproliferative and inflammatory conditions such as psoriasis, tumor, and cancer, for e.g., glioblastoma, bladder cancer, breast cancer, lung cancer, and colon cancer. (I) is useful for detecting the presence of PKC isoform-specific nucleic acids in a cell or tissue sample, to perform autoradiography of tissues to determine the localization, distribution and quantitation of PKC proteins for research, diagnostic or therapeutic purposes, for diagnosing abnormal **proliferative** states in tissues or other samples from patients suspected of having a hyperproliferative disease, and for detection and diagnosis of PKC **expression**.

ADMINISTRATION - (I) is administered by topical (including ophthalmic, vaginal, rectal, intranasal, transdermal), oral, or parenteral (including intravenous, subcutaneous, intraperitoneal, intramuscular, intrathecal, or intraventricular) route at a dose of 0.01 microgram-100 g/kg body weight.

EXAMPLE - Synthesis of oligonucleotides with racemic intersugar linkages was as follows. Unmodified DNA oligonucleotides were synthesized on an automated DNA synthesizer using standard phosphoramidite chemistry with oxidation by iodine. For racemic phosphorothioate oligonucleotides, the standard oxidation bottle was replaced by a 0.2 M solution of 3H-1,2-benzodithiol-3-one 1,1-dioxide in acetonitrile for the stepwise thiation of the phosphite linkages. The thiation cycle wait step was increased to 68 seconds and was followed by the capping step. 2'-O-methyl phosphorothioate oligonucleotides were synthesized according to the above procedures substituting 2'-O-methyl beta-cyanoethyldiisopropyl phosphoramidites for standard phosphoramidites and increasing the wait cycle after the pulse delivery of tetrazole and base to 360 seconds. Similarly, 2'O-propyl phosphorothioate oligonucleotides were prepared by slight modifications of this procedure. 2'-fluoro phosphorothioate oligonucleotides were synthesized using 5'-dimethoxytrityl-3'-phosphoramidites. The 2'-fluoro oligonucleotides were prepared using phosphoramidite chemistry and a slight modification of the standard DNA synthesis protocol. After cleavage from the controlled pore glass column and deblocking in concentrated ammonium hydroxide at 55 degrees C for 18

hours, the oligonucleotides were purified by precipitation twice out of 0.5 M NaCl with 2.5 volumes ethanol. Purified oligonucleotides were assessed for final purity by analytical high pressure liquid chromatography (HPLC) or analytical gel electrophoresis. The authenticity of the oligonucleotide sequence was assessed by oxidation with iodine in pyridine/water and standard sequencing methods. These phosphorothioate oligonucleotides contained a mixture of all possible combinations of stereospecific (i.e., Rp and Sp) isomers at each phosphorus linkage. (77 pages)

L16 ANSWER 22 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:449841 HCAPLUS
DOCUMENT NUMBER: 137:29829
TITLE: Identification, **cloning**, sequence and therapeutic use of **human protein kinase** BAA77392.1 (KNS1)
INVENTOR(S): Phelps, Christopher Benjamin; Fagan, Richard Joseph
PATENT ASSIGNEE(S): Inpharmatica Limited, UK
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046380	A2	20020613	WO 2001-GB5348	20011204
WO 2002046380	A3	20030206		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002022122	A5	20020618	AU 2002-22122	20011204
PRIORITY APPLN. INFO.:			GB 2000-29549 A	20001204
			WO 2001-GB5348 W	20011204

AB This invention relates to a novel **human** protein, termed BAA77392.1 (KNS1), herein identified as a protein **kinase** and to the use of this proteins and cDNA sequence from the encoding gene in the diagnosis, prevention and treatment of disease.

L16 ANSWER 23 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:107557 HCAPLUS
DOCUMENT NUMBER: 136:162371
TITLE: **Cloning** and characterization of novel **human protein kinase** family members 32374 and 18431 and their therapeutic uses
INVENTOR(S): Meyers, Rachel; Kapeller-Libermann, Rosana; Silos-Santiago, Immaculada
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 141 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002010401	A2	20020207	WO 2001-US23653	20010727
WO 2002010401	A3	20030306		
WO 2002010401	C2	20030912		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002061573	A1	20020523	US 2001-916790	20010727
EP 1315817	A2	20030604	EP 2001-957286	20010727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004083496	A1	20040429	US 2003-678786	20031003
PRIORITY APPLN. INFO.:			US 2000-221543P	P 20000728
			US 2001-916790	B1 20010727
			WO 2001-US23653	W 20010727

AB The invention provides isolated nucleic acids mols., designated 32374 or 18431 nucleic acid mols., which encode novel protein **kinase** family members. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 32374 or 18431 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 32374 or 18431 gene has been introduced or disrupted. Their putative function domains are analyzed and their gene **expression** profiles are provided. The invention still further provides isolated 32374 or 18431 proteins, fusion proteins, antigenic peptides and anti-32374 or -18431 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L16 ANSWER 24 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:72144 HCAPLUS
DOCUMENT NUMBER: 136:113840
TITLE: Protein and cDNA sequences of novel **human protein kinase** sequence homologs and uses thereof
INVENTOR(S): Meyers, Rachel; Kapeller-Libermann, Rosana; Rudolph-Owen, Laura; Tsai, Fong-ying
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 159 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

WO 2002006330	A2	20020124	WO 2001-US22820	20010718
WO 2002006330	A3	20030123		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1335981	A2	20030820	EP 2001-959043	20010718

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 2000-219028P P 20000718
WO 2001-US22820 W 20010718

AB The invention provides protein and cDNA sequences of novel **human** protein, designated 13237, 18480, 2245 or 16228, which have sequence homol. with protein **kinase** family members. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 13237,18480,2245 or 16228 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 13237,18480,2245 or 16228 gene has been introduced or disrupted. The invention still further provides isolated 13237,18480,2245 or 16228 proteins, fusion proteins, antigenic peptides and anti-13237,-18480,-2245 or -16228 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L16 ANSWER 25 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:638201 HCAPLUS
DOCUMENT NUMBER: 137:190687
TITLE: Novel molecules of the HKID-1-related protein **kinase** family and uses thereof
INVENTOR(S): Kapeller-Libermann, Rosana; Rudolph-Owen, Laura A.; MacBeth, Kyle
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 644,450.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002115120	A1	20020822	US 2001-971791	20011004
US 6143540	A	20001107	US 1999-237543	19990126
US 6383791	B1	20020507	US 2000-644450	20000823
WO 2003029434	A2	20030410	WO 2002-US31948	20021004
WO 2003029434	A3	20031016		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1432448	A2	20040630	EP 2002-800492	20021004

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.:
US 1999-237543 A3 19990126
US 2000-644450 A2 20000823
US 2001-971791 A 20011004
WO 2002-US31948 W 20021004

AB Novel HKID-1 polypeptides, proteins, and nucleic acid mols. are disclosed. HKID-1 is a serine/threonine protein **kinase** which is the ortholog of rat KID-1. In addition to isolated, full-length HKID-1 proteins, the invention further provides isolated HKID-1 fusion proteins, antigenic peptides and anti-HKID-1 antibodies. The invention also provides HKID-1 nucleic acid mols., **recombinant expression** vectors containing a nucleic acid mol. of the invention, host cells into which the

expression vectors have been introduced and non-**human** transgenic animals in which an HKID-1 gene has been introduced or disrupted. Diagnostic, screening and therapeutic methods utilizing compns. of the invention are also provided.

L16 ANSWER 26 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:290717 HCAPLUS
DOCUMENT NUMBER: 136:320386
TITLE: Sequences of **human protein kinase** p54S6K and p85S6K, and methods of regulation and detection of them
INVENTOR(S): Blenis, John; Lee-Fruman, Kay K.; Kuo, Calvin J.
PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA
SOURCE: U.S., 30 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6372467	B1	20020416	US 1999-430564		19991029
PRIORITY APPLN. INFO.:			US 1998-106141P	P	19981029

AB The present invention discloses sequences of novel **human protein kinases**, p54S6K and p85S6K, DNA sequences encoding them, methods of detecting them and activities of the **kinases**. Specifically, the invention discloses methods of characterization of the protein, activation and regulation of their enzymic activities. Also disclosed are methods for identifying compds. that modulate, or which are modulated by, p54S6K or p85S6K . In addition, the invention discloses methods for diagnosing or treating a cellular **proliferative** disease.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 27 OF 65 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2002484132 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12269829
TITLE: Modulation of the **human protein kinase** C alpha gene promoter by activator protein-2.
COMMENT: Erratum in: Biochemistry 2002 Oct 29;41(43):13116
AUTHOR: Clark Joannah Hackenbruck; Haridasse Vedanandam; Glazer Robert I
CORPORATE SOURCE: Department of Pharmacology, Lombardi Cancer Center, Georgetown University School of Medicine, 3970 Reservoir Road NW, Washington, D.C. 20007, USA.
CONTRACT NUMBER: 2P50 CA 58185-04 (NCI)
R01 NS 34431 (NINDS)
SOURCE: Biochemistry, (2002 Oct 1) 41 (39) 11847-56.
Journal code: 0370623. ISSN: 0006-2960.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF395829
ENTRY MONTH: 200211
ENTRY DATE: Entered STN: 20020925
Last Updated on STN: 20021217
Entered Medline: 20021119

AB Protein **kinase** Calpha (PKCalpha) is a phospholipid-dependent protein-serine/threonine **kinase** that plays a major role in intracellular signaling pathways associated with transformation and tumor

progression. Glioblastoma multiforme (GBM) and GBM cell lines exhibit increased levels of PKCalpha compared to normal brain tissue that relates to their **proliferative** and invasive potential. To investigate the transcriptional regulation of PKCalpha, the 5'-flanking sequence of the **human** PKCalpha gene was **cloned** and its promoter activity assessed in U-87 GBM cells. This sequence contained a TATA-less promoter region and a single transcription start site within an initiator sequence. Basal promoter activity was restricted to a region spanning -227 to +77 relative to the transcription start site. DNase I footprinting revealed multiple activator protein-2 (AP-2) binding sites and one Sp1 binding site within this region, and point mutations of two AP-2 elements resulted in a loss of DNA binding and transcriptional activation. Overexpression of Sp1 in either U-87 or insect cells increased transcription from the -227/+77 promoter region, whereas overexpression of AP-2 increased transcription only in insect cells. Cis activation of the promoter in U-87 cells was increased by phorbol esters but not by cyclic AMP or phosphatidylinositol 3-**kinase** inhibitors. These results provide evidence that cis activation of the basal promoter of the **human** PKCalpha gene occurs through an AP-2-dependent, phorbol ester-responsive pathway, which suggests an autoregulatory manner of transcription in GBM.

L16 ANSWER 28 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:873511 HCAPLUS
DOCUMENT NUMBER: 138:301117
TITLE: Role of protein **kinase** C α in primary **human** osteoblast proliferation
AUTHOR(S): Lampasso, J. D.; Marzec, N.; Margarone, J., III; Dziak, R.
CORPORATE SOURCE: Department of Oral Biology, University at Buffalo, Buffalo, NY, USA
SOURCE: Journal of Bone and Mineral Research (2002), 17(11), 1968-1976
CODEN: JBMREJ; ISSN: 0884-0431
PUBLISHER: American Society for Bone and Mineral Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Protein **kinase** C (PKC) isoforms have been shown to have specific **expression** profiles and individual isoforms are believed to play distinct roles in the cells in which they are found. The goal here was to determine which specific isoform(s) is involved in proliferation of primary **human** osteoblasts. In primary **human** osteoblasts, 10 μM of acute sphingosine-1-phosphate (S1P) treatment induced an increase in proliferation that correlated with an increase in PKCα and PKCι **expression**. To further delineate which isoforms are involved in osteoblastic cell proliferation, the effect of low vs. high serum culture conditions on PKC isoform **expression** was determined Likewise, the effect of antisense oligodeoxynucleotides (ODNs) to specific PKC isoforms on proliferation and MAPK activation was studied. The effect of S1P on intracellular translocation of activated PKC isoforms was also evaluated. The results indicated that in primary **human** osteoblasts, PKCα was not **expressed** under conditions of low **proliferative** rate while PKCδ and PKCι **expression** was not affected. The specific inhibition of PKCα by antisense ODNs resulted in inhibition of MAPK activity leading to a significant decrease in proliferation. S1P up-regulated antisense ODN inhibited PKCα **expression** and MAPK activity and led to an increase in proliferation. Subsequent expts. using platelet-derived growth factor (PDGF) as an addnl. mitogen generated similar data. PDGF stimulation resulted in a significant increase in proliferation that correlated with an up-regulation of inhibited PKCα **expression** in antisense ODN-treated cells. Immunofluorescence methods showed that mitogenic stimulation of PKCα resulted in nuclear translocation. Our findings present original data

that PKCα is the isoform specifically involved in the proliferation of primary **human** osteoblasts.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 29 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:648114 HCAPLUS
DOCUMENT NUMBER: 137:367443
TITLE: Higher levels of melanin and inhibition of cdk2 activity in primary **human** melanoma cells WM115 overexpressing nPKC.vdelta.
AUTHOR(S): La Porta, C. A. M.; Porro, D.; Comolli, R.
CORPORATE SOURCE: Department of General Physiology and Biochemistry, Section of General Pathology, University of Milano, Milan, 20133, Italy
SOURCE: Melanoma Research (2002), 12(4), 297-307
CODEN: MREEEH; ISSN: 0960-8931
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Many studies have attempted to define the state of differentiation of melanoma cells and to correlate it with other critical parameters of malignancy such as the tumorigenic and metastatic nature of the cells. In the present paper we focused on the possible relationships between the novel protein **kinase** C isoform nPKC.vdelta., melanin synthesis and **proliferative** capacity in a primary **human** melanoma cell line WM115. Cells were transfected to produce overexpression of this isoform and the effects on melanin synthesis, cyclin-E dependent **kinase** (cdk2) activity and cyclin E **expression** were studied. It was shown that translocation of nPKC.vdelta. into the nucleus affects melanin synthesis and inhibits cdk2 activity. As a compensatory effect, the level of cyclin E increases. In view of these results we suggest a model for the role of nPKC.vdelta. in melanoma cells that may offer a new therapeutic perspective.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 30 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2003:15558 BIOSIS
DOCUMENT NUMBER: PREV200300015558
TITLE: Isolation of differentially **expressed** genes in **human** heart tissues.
AUTHOR(S): Sun, Guifeng [Reprint Author]; Chan, Siu Yuen; Yuan, Yihua; Chan, Kin Wang; Qiu, Guangrong; Sun, Kailai; Leung, Maurice Ping
CORPORATE SOURCE: Department of Physiology and Biophysics, College of Medicine, University of California, Irvine, Room 288, Joan Irvine Smith Hall, Irvine, CA, 92697, USA guifengs@uci.edu
SOURCE: Biochimica et Biophysica Acta, (12 December 2002) Vol. 1588, No. 3, pp. 241-246. print.
ISSN: 0006-3002 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Dec 2002
Last Updated on STN: 25 Dec 2002

AB We applied RNA arbitrarily primed-PCR (RAP-PCR) to screen the genes differentially **expressed** between common congenital heart defects (CHD) (atrial septal defect, ventricular septal defect, Tetrology of Fallot (TOF)) and normal **human** heart samples. Three of these differentially amplified fragments matched cDNA sequences coding for proteins of unknown function in **humans**: hCALO (**human** homologue of calossin), NP79 (coding for a nuclear protein of 79KD) and

SUN2 (Sad-1 unc-84 domain protein 2). The other four fragments were from known **human** genes: apolipoprotein J, titin, dystrophin and protein **kinase** C-delta. Northern blot analysis confirmed that all of these genes are **expressed** in the **human** heart. The results of RAP-PCR were reconfirmed by quantitative RT-PCR in TOF and control heart samples. Both techniques showed the levels of **expression** of hCALO, NP79 and SUN2 to be comparable in TOF and control samples and the level of **expression** of dystrophin and titin, both coding for cytoskeletal proteins, to be significantly upregulated in TOF samples. In summary, we have shown that the RAP-PCR technique is useful in the identification of differentially **expressed** gene from biopsy samples of **human** CHD tissues. In this manner, we have identified three novel genes implicated in the normal function of the **human** heart and two known genes upregulated in TOF samples.

L16 ANSWER 31 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
DUPLICATE 3
ACCESSION NUMBER: 2002-02388 BIOTECHDS
TITLE: New **human protein kinase** polypeptide, 3714, 16742, 23546 and 13887, useful in diagnosis of cancer or cellular proliferation or differentiation disorders and to screen for polypeptide modulators useful to treat such conditions;
and also useful for gene therapy and drug screening
AUTHOR: Meyers R
PATENT ASSIGNEE: Millennium-Pharm.
LOCATION: Cambridge, MA, USA.
PATENT INFO: WO 2001073050 4 Oct 2001
APPLICATION INFO: WO 2001-US9483 23 Mar 2001
PRIORITY INFO: US 2000-191846 24 Mar 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2001-611632 [70]
AB A 3714, 16742, 23546 or 13887 nucleic acid (NA) molecule (I) comprising defined sequence (S5)-(S12) of 3714, 2352, 16742, 1026, 22546, 3735, 13887 and 1260 bp, is new. Also claimed are: a host cell (III); 3714, 16742, 23546, or 13887 protein sequence (II); an antibody which selectively binds to (II); producing (II); detecting (I) or (II) in a sample; a kit; identifying a compound which binds to a protein or modulates the activity of (II); modulating (II) activity; identifying (M1) and (M2) a NA molecule associated with cancer; identifying (M3) a protein associated with tumors; identifying a subject (at risk of) having tumors; identifying a compound capable of treating tumors; treating (M4) a subject having cancer; evaluating efficiency of treatment of tumors; and diagnosing tumors. Also disclosed are non-**human** transgenic animals. 3714, 16742, 23546, or 13887 are useful in treating and diagnosing tumors (particularly in the colon), bone related disorders, inflammatory disorders, autoimmune diseases, **cardiovascular** disorders, and liver diseases and useful for screening methods for identifying subjects (at risk of) having tumors, and drug screening. (169pp)

L16 ANSWER 32 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
DUPLICATE 4
ACCESSION NUMBER: 2002-00501 BIOTECHDS
TITLE: Novel **human protein-kinases** and protein-**kinase**-like enzymes for treating and diagnosing various **kinase**-related diseases and conditions;
vector-mediated gene transfer, **expression** in host cell, monoclonal antibody, hybridoma and DNA probe for **recombinant** protein production, drug screening and disease therapy and diagnosis

AUTHOR: Plowman G D; Whyte D; Manning G; Sudarsanam S; Martinez R
PATENT ASSIGNEE: Sugen
LOCATION: South San Francisco, CA, USA.
PATENT INFO: WO 2001066594 13 Sep 2001
APPLICATION INFO: WO 2001-US6838 2 Mar 2001
PRIORITY INFO: US 2000-247013 13 Nov 2000; US 2000-187150 6 Mar 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2001-536777 [59]

AB A DNA (I, having defined DNA sequence given in the specification) capable of encoding **human protein-kinases** (EC-2.7.1.37) or protein-**kinase**-like proteins (II, having defined protein sequence given in the specification) are claimed. Also claimed are: a **recombinant** cell containing (I) encoding a protein-**kinase** having the sequence of (II); a hybridoma which produces a monoclonal antibody which specifically binds to (II); a kit containing an antibody which binds to (II); identifying a substance that modulates the activity of a protein-**kinase**; treating a disease or disorder by administering to a patient a substance that modulates the activity of a protein-**kinase** having the protein sequence of (II); and detection of a protein-**kinase** in a sample as a diagnostic tool for a disease using a DNA probe. (I) is capable of encoding **human protein-kinases** or protein-**kinase**-like proteins is used for detection of DNA encoding a protein-**kinase** in a sample. The protein-**kinases** are useful for diagnosis and treatment of a disease selected from cancer, immune disease, **cardiovascular** disease, neurological disease, virus or bacterium infection and organ transplant rejection. (201pp)

L16 ANSWER 33 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 2002:55545 BIOSIS
DOCUMENT NUMBER: PREV200200055545
TITLE: **Human protein kinases** hYAK3-2.
AUTHOR(S): Lord, Kenneth A. [Inventor, Reprint author]; Dillon, Susan B. [Inventor]; Creasy, Caretha [Inventor]
CORPORATE SOURCE: Collegeville, PA, USA
ASSIGNEE: SmithKline Beecham Corporation
PATENT INFORMATION: US 6323318 November 27, 2001
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 27, 2001) Vol. 1252, No. 4. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Jan 2002
Last Updated on STN: 25 Feb 2002

AB hYAK3-2 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK3-2 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndrome (ARDS), Rheumatoid arthritis, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers including testicular cancer; anorexia; bulimia; neutropenia; cytopenia; anemias, including anemias due to renal insufficiency or to chronic disease, such as autoimmunity or cancer, and drug-induced anemias; polycythemia; myelosuppression; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy;

and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome, among others, and diagnostic assays for such conditions.

L16 ANSWER 34 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2002-06177 BIOTECHDS
TITLE: Novel **human protein kinase** protein and polynucleotides used in the diagnosis and treatment of disorders e.g. osteoporosis, osteodystrophy, osteomalacia, rickets, obesity and to identify modulators of therapeutic use;
involving vector-mediated gene transfer for **expression** in host cell, for use in diagnosis, therapy, gene therapy and drug screening
AUTHOR: MEYERS R A
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: WO 2001096544 20 Dec 2001
APPLICATION INFO: WO 2000-US19269 15 Jun 2000
PRIORITY INFO: US 2000-212078 15 Jun 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-130729 [17]
AB DERWENT ABSTRACT:
NOVELTY - An isolated **human protein kinase**, 53070 polypeptide (I), is new.

DETAILED DESCRIPTION - An isolated **human protein kinase**, 53070 polypeptide (I), comprising a fragment of 15 contiguous aa of a sequence (S1) of 261 (residue 12-272 of a sequence of 272 aa as given in the specification) aa given in specification, a naturally occurring allelic variant of (S1) or aa sequence encoded by a nucleotide sequence that hybridizes to a 53070 nucleic acid sequence (S2) of defined base pairs as given in the specification, or a polypeptide encoded by nucleic acid molecule comprising a sequence 80% identical to (S2), is new. INDEPENDENT CLAIMS are also included for the following: (1) an isolated nucleic acid molecule (II) encoding (I) comprising: (a) nucleotide sequence (NS) which is 80% identical to (S2); (b) a fragment of 280 nucleotides of (S2); (c) NS encoding the polypeptide comprising (S1); (d) NS encoding a fragment of 15 contiguous aa of (S1); or (e) NS encoding a naturally occurring allelic variant of (I), where the NS hybridizes to (S2) or its complement under stringent conditions; (2) a host cell (non-mammalian host cell) (III) containing (II); (3) an antibody (Ab) specific to (I); (4) preparation of (I); (5) detecting (M1) (I)/(II) in a sample, by contacting the sample with a compound which selectively hybridizes to (II) (nucleic acid probe or primer) or binds to (I); and determining whether the compound hybridizes to the nucleic acid or binds to polypeptide in the sample; (6) a kit comprising a compound which selectively hybridizes to (II) or binds to (I), and instructions for use; (7) modulating (M2) the activity of (I), by contacting (I) or cell **expressing** (I) with a compound which binds to (I) to modulate the activity of (I); (8) modulating (M3) the phosphorylation of 53070 substrate in a cell **expressing** (I) comprising contacting the cell with a compound that modulates activity or **expression** of (I) or (II); (9) treating or preventing (M4) a subject having a disorder characterized by abnormal phosphorylation of 53070 substrate in cell **expressing** (I) comprising administering a compound modulating the activity of (I) or (II) such that the abnormal phosphorylation of the substrate is reduced or inhibited; and (10) detecting (M5) in a subject, a disorder characterized abnormal levels of (I) comprising a tissue sample from the subject and determining amount of (I) in the sample where change in amount of (I) indicates the presence of a disorder.

WIDER DISCLOSURE - Also disclosed are: (1) a nucleic acid construct

comprising (II); (2) an isolated nucleic acid molecule which is antisense to (II); (3) a chimeric or fusion protein comprising (I) linked to non-53070 polypeptide; (4) an antigen binding fragment specific to (I); (5) a compound which modulates the activity or **expression** of (I); (6) a method to evaluate the efficacy of a treatment of a disorder e.g. **proliferative** disorder; (7) a method too evaluate the efficacy of a therapeutic or prophylactic agent; (8) a two-dimensional array having several addresses where each address being positionally distinguishable from each other; (9) variants of (I)/(II); (10) a **recombinant expression** vectors comprising (II); and (11) nonhuman transgenic animal comprising (II).

BIOTECHNOLOGY - Preparation: (I) is prepared by culturing (III) under conditions in which (II) is **expressed** (claimed). Preferred Polynucleotide: (II) further comprises vector nucleic acid sequences and encodes a heterologous polypeptide. Preferred Polypeptide: (I) further comprises a heterologous amino acid sequence. Preferred Method: In M3, a compound is a peptide, phosphopeptide, a small organic molecule or an antibody and a substrate is phosphorylated on one or more serine and/or threonine residues.

ACTIVITY - Nootropic; Neuroprotective; Anticonvulsant; Neuroleptic; Antimigraine; Anorectic; Vasotropic; Cardiant; Cytostatic; Hepatotropic; Antidiabetic; Antiinfertility; Immunostimulant; Osteopathic; immunosuppressive; Anabolic; Nephrotropic. No supporting data provided.

MECHANISM OF ACTION - Gene therapy; Modulator of (I) or (II); antisense therapy. No supporting data provided.

USE - (I) is useful for identifying a compound which binds to (I) or modulates the activity of (I), by contacting (I) or a cell **expressing** (I) with a test compound, and determining whether (I) binds to the compound or determining the effect of the compound and the activity of (I) . (M1) is useful for detecting (I)/(II) in a sample; (M2) is useful for modulating the activity of (I); (M3) is useful for modulating the phosphorylation of 53070 substrate in a cell **expressing** (I); (M4) is useful for treating or preventing a subject having a disorder characterized by abnormal phosphorylation of 53070 substrate in cell **expressing** (I); (M5) is useful detecting in a subject, a disorder characterized by abnormal levels of (I) (all claimed). (I) and/or (II) are useful as modulating agents in treating and diagnosing disorders associated with bone metabolism, immune disorders, **cardiovascular** disorders, liver disorders, viral diseases, pain or metabolic disorders, reproductive disorders such as oristatic or testicular disorders, where the disorders include bone disorders such as osteoporosis, osteodystrophy, osteomalacia, rickets, osteitis fibrosa cystica, renal osteodystrophy, osteosclerosis, anti-convulsant treatment, osteopenia, fibrogenesis-imperfecta ossium, secondary hyperparathyrodism, hypoparathyroidism, cirrhosis, obstructive jaundice, drug induced metabolism, medullary carcinoma, chronic renal disease, sarcoidosis, glucocorticoid antagonism, malabsorption syndrome, steatorrhea, tropical sprue, idiopathic hypercalcemia and milk fever; portal hypertension or hepatic fibrosis, Gaucher's disease, hemochromatosis, copper storage disease, hepatocellular cancer, diseases of metabolic imbalance include obesity, anorexia nervosa, cachexia, lipid disorders, and diabetes; pain disorders include tissue injury e.g. inflammation, infection and ischemia, pain associated with musculoskeletal disorders e.g. joint pain, tooth pain, headaches. (I), (II), homologs of (I) and (IV) are useful for screening assays; predictive medicine (e.g., diagnostic assays, prognostic assays, monitoring clinical trials, and pharmacogenetics) and treatment (e.g., therapeutic and prophylactic). (II) is useful for **expressing** a 53070 protein (e.g., via a **recombinant expression** vector in a host cell in a gene therapy applications), detecting a 53070 mRNA (e.g., in a biological sample) or a genetic alteration in a 53070 gene, and modulating mRNA (e.g., in a biological sample) or a genetic alteration in a 53070 gene, and to modulate 53070 activity. (I) is used to treat disorders characterized by insufficient or excessive production

of a 53070 substrate or production of 53070 inhibitors. (I) can also be used to screen for naturally occurring 53070 substrates, to screen for drugs or compounds which modulate 53070 activity, as well as to treat disorders characterized by insufficient or excessive production of 53070 protein or production of 53070 protein forks which have decreased, aberrant or unwanted activity compared to 53070 wild type protein (e.g. a liver or muscular disorder). Moreover, the anti-53070 antibodies can be used to detect and isolate 53070 proteins, regulate the bioavailability of 53070 proteins, and modulate 53070 activities. Fragments of (II) are also useful to synthesize antisense molecules of desired length and sequences. (II) is also useful to detect mutations in genes and gene **expression** products such as mRNA, as antisense constructs to control gene **expression** and for chromosome identification. (III) is useful for producing proteins and polypeptides, for conducting cell-based assays involving the protein or fragments and to produce non-**human** transgenic animals which are useful for studying the function of a receptor protein and identifying and evaluating modulators of the protein activity.

ADMINISTRATION - Pharmaceutical composition comprising (I) is administered by parenteral, e.g. intravenous, intradermal, subcutaneous, oral (inhalation), transdermal (topical), transmucosal or rectal route. Antisense nucleic acid molecule of (II) is administered by direct injection at a tissue site or generated in situ such that they hybridize with or bind to cellular mRNA and/or genomic DNA encoding (I). Dosage is 0.001-30 (preferably 0.1-20) mg/kg.

EXAMPLE - No relevant example is given. (112 pages)

L16 ANSWER 35 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:868685 HCAPLUS
DOCUMENT NUMBER: 136:15967
TITLE: Protein and cDNA sequences of a novel **human protein kinase** sequence homolog 13305 and uses thereof
INVENTOR(S): Curtis, Rory A. J.; Weich, Nadine
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001090365	A2	20011129	WO 2001-US16197	20010517
WO 2001090365	A3	20030123		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1294894	A2	20030326	EP 2001-937568	20010517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-205301P P 20000519
WO 2001-US16197 W 20010517

AB The invention provides isolated nucleic acids mols., designated 13305 nucleic acid mols., which encode novel protein **kinases**. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 13305 nucleic acid mols., host cells

into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which 13305 gene has been introduced or disrupted. The invention still further provides isolated 13305 proteins, fusion proteins, antigenic peptides and anti-13305 antibodies. Diagnostic, screening and therapeutic methods utilizing compns. of the invention are also provided.

L16 ANSWER 36 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:798438 HCAPLUS
DOCUMENT NUMBER: 135:340275
TITLE: Protein and cDNA sequences of a novel **human protein kinase** sequence homolog 14911 and uses thereof
INVENTOR(S): Meyers, Rachel; Hunter, John Joseph
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081589	A2	20011101	WO 2001-US13785	20010425
WO 2001081589	A3	20030130		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1297151	A2	20030402	EP 2001-930916	20010425
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:
US 2000-199391P P 20000425
US 2000-593927 A 20000615
WO 2001-US13785 W 20010425

AB The invention provides isolated nucleic acids mols., designated 14911 nucleic acid mols., which encode novel protein **kinases**. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 14911 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which 14911 gene has been introduced or disrupted. The invention still further provides isolated 14911 proteins, fusion proteins, antigenic peptides and anti-14911 antibodies. Diagnostic, screening and therapeutic methods utilizing compns. of the invention are also provided.

L16 ANSWER 37 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:798437 HCAPLUS
DOCUMENT NUMBER: 135:340274
TITLE: Protein and cDNA sequences of a novel **human protein kinase** sequence homolog 2246 and uses thereof
INVENTOR(S): Meyers, Rachel
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 111 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081588	A2	20011101	WO 2001-US13784	20010425
WO 2001081588	A3	20020404		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002155570	A1	20021024	US 2001-842582	20010425
EP 1290183	A2	20030312	EP 2001-930915	20010425
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-199391P P 20000425
WO 2001-US13784 W 20010425

AB The invention provides isolated nucleic acids mols., designated 2246 nucleic acid mols., which encode novel protein **kinases**. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 2246 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which 2246 gene has been introduced or disrupted. The invention still further provides isolated 2246 proteins, fusion proteins, antigenic peptides and anti-2246 antibodies. Diagnostic, screening and therapeutic methods utilizing compns. of the invention are also provided.

L16 ANSWER 38 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:798433 HCAPLUS
DOCUMENT NUMBER: 135:340271
TITLE: Protein and cDNA sequences of a novel ubiquitin conjugating enzyme sequence homolog 27960 and uses thereof
INVENTOR(S): Meyers, Rachel A.; Tsai, Fong-Ying
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081584	A2	20011101	WO 2001-US40607	20010425
WO 2001081584	A3	20020404		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2003224376	A1	20031204	US 2002-184648	20020627

PRIORITY APPLN. INFO.: US 2000-199500P P 20000425
US 2000-187456P P 20000307

US 2000-191865P	P	20000324
US 2000-191964P	P	20000324
US 2000-192092P	P	20000324
US 2000-200604P	P	20000428
US 2000-205408P	P	20000519
US 2000-211730P	P	20000615
US 2000-212077P	P	20000615
US 2000-212079P	P	20000615
US 2000-235044P	P	20000925
US 2000-238849P	P	20001006
US 2001-267494P	P	20010208
US 2001-801220	A2	20010307
WO 2001-US7269	A	20010307
US 2001-815028	A2	20010322
WO 2001-US9358	A	20010322
US 2001-816714	B2	20010323
WO 2001-US9468	A	20010323
US 2001-817910	A2	20010326
WO 2001-US9633	A	20010326
US 2001-842528	B2	20010425
WO 2001-US40607	A	20010425
US 2001-844948	A2	20010427
WO 2001-US13805	A	20010427
US 2001-861164	B2	20010518
WO 2001-US16292	A	20010518
US 2001-882836	A2	20010615
US 2001-882872	B2	20010615
US 2001-883060	A2	20010615
WO 2001-US19138	A	20010615
WO 2001-US19153	A	20010615
WO 2001-US19543	A	20010615
US 2001-962678	A2	20010925
WO 2001-US29963	A	20010925
US 2001-973457	A2	20011009
US 2002-72285	A2	20020208
WO 2002-US3736	A	20020208

AB The invention provides isolated nucleic acids mols., designated 27960 nucleic acid mols., which encode novel ubiquitin-conjugating enzyme family members. The mRNA distribution profiles in various animal tissues and tumors are provided. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 27960 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 27960 gene has been introduced or disrupted. The invention still further provides isolated 27960 proteins, fusion proteins, antigenic peptides and anti-27960 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L16 ANSWER 39 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:781119 HCAPLUS
DOCUMENT NUMBER: 135:340227
TITLE: Protein and cDNA sequences of a novel **human protein kinase** sequence homologs and uses thereof
INVENTOR(S): Kapeller-Libermann, Rosana
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001079488	A2	20011025	WO 2001-US12188		20010413
WO 2001079488	A3	20030130			

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002090701	A1	20020711	US 2001-834496		20010413
PRIORITY APPLN. INFO.:			US 2000-196910P	P	20000413

AB The invention provides protein and cDNA sequences of a novel **human** protein, designated 14257, which has sequence homol. with protein **kinases**. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 14257 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 14257 gene has been introduced or disrupted. The invention still further provides isolated 14257 proteins, fusion proteins, antigenic peptides and anti-14257 antibodies. Diagnostic, screening, and therapeutic methods utilizing compns. of the invention are also provided.

L16 ANSWER 40 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2001:763200 HCAPLUS
DOCUMENT NUMBER:	135:328144
TITLE:	Novel **human** protein and cDNA sequences of **kinases** and its therapeutic use
INVENTOR(S):	Plowman, Gregory; Whyte, David; Manning, Gerard; Sudarsanam, Sucha; Martinez, Ricardo; Caenepeel, Sean
PATENT ASSIGNEE(S):	Sugen, Inc.; USA
SOURCE:	PCT Int. Appl., 167 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001077338	A2	20011018	WO 2001-US11675		20010410
WO 2001077338	A3	20020829			

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1278859	A2	20030129	EP 2001-924901		20010410

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2003530110	T2	20031014	JP 2001-575192		20010410
US 2003224378	A1	20031204	US 2003-240315		20030225
PRIORITY APPLN. INFO.:			US 2000-195953P	P	20000410
			US 2000-201015P	P	20000501
			US 2000-213805P	P	20000622
			WO 2001-US11675	W	20010410

AB The present invention relates to **kinase** polypeptides, nucleotide sequences encoding the **kinase** polypeptides, as well as various

products and methods useful for the diagnosis and treatment of various **kinase**-related diseases and conditions. Through the use of a bioinformatics strategy, mammalian members of the of PTK's and STK's have been identified and their protein structure predicted.

L16 ANSWER 41 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:661616 HCAPLUS
DOCUMENT NUMBER: 135:207454
TITLE: Protein and cDNA sequences of novel **human protein kinase** sequence homologs and uses thereof
INVENTOR(S): Olandt, Peter J.; Kapeller-Libermann, Rosana; Meyers, Rachael A.
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 44
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064905	A2	20010907	WO 2001-US6525	20010228
WO 2001064905	A3	20020808		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1259620	A2	20021127	EP 2001-913192	20010228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003180930	A1	20030925	US 2002-170789	20020613
WO 2003027308	A2	20030403	WO 2002-US30054	20020923
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:

US 2000-186061P	P	20000229
US 2000-187420P	P	20000307
US 2000-187454P	P	20000307
US 2000-197508P	P	20000418
US 2000-205508P	P	20000519
US 2000-212078P	P	20000615
US 2000-226740P	P	20000821
US 2000-235023P	P	20000925
US 2000-246561P	P	20001107
US 2001-797039	A2	20010228
WO 2001-US6525	W	20010228
WO 2001-US7074	A	20010305
WO 2001-US7138	A	20010305
US 2001-801267	A2	20010306

US 2001-801275	A2	20010306
US 2001-829671	A2	20010410
WO 2001-US40483	A	20010411
US 2001-861801	A2	20010521
WO 2001-US16549	A	20010521
US 2001-882166	A2	20010615
WO 2001-US19269	A	20010615
US 2001-934406	A2	20010821
WO 2001-US26052	A	20010821
US 2001-961656	A	20010924
US 2001-961721	A2	20010924
WO 2001-US29904	A	20010924
US 2001-45367	A2	20011107

AB The invention provides protein and cDNA sequences of novel **human protein kinase** sequence homologs, designated 2504, 15977, or 14760, which are novel members of protein **kinase** family. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 2504, 15977, or 14760 nucleic mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 2504, 15977, or 14760 gene has been introduced or disrupted. The invention still further provides isolated 2504, 15977, or 14760 proteins, fusion proteins, antigenic peptides and anti-2504, 15977, or 14760 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L16 ANSWER 42 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:565235 HCAPLUS
DOCUMENT NUMBER: 135:164088
TITLE: Novel **human protein kinases** and protein **kinase**-like enzymes and their diagnostic and therapeutic use
INVENTOR(S): Plowman, Gregory; Whyte, David; Manning, Gerard; Sudarsanam, Sucha; Martinez, Ricardo
PATENT ASSIGNEE(S): Sugen, Inc., USA
SOURCE: PCT Int. Appl., 218 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001055356	A2	20010802	WO 2001-US2337	20010125
WO 2001055356	A3	20020328		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001034544	A5	20010807	AU 2001-34544	20010125
EP 1254214	A2	20021106	EP 2001-906658	20010125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003520602	T2	20030708	JP 2001-554387	20010125
US 2004048310	A1	20040311	US 2003-182243	20030116

PRIORITY APPLN. INFO.:

US 2000-178078P	P	20000125
US 2000-179364P	P	20000131
US 2000-183173P	P	20000217
US 2000-190162P	P	20000317

	US 2000-193404P	P	20000329
	US 2000-247013P	P	20001113
	WO 2001-US2337	W	20010125

AB The present invention relates to **kinase** polypeptides, nucleotides sequences encoding the **kinase** polypeptides, as well as various products and methods useful for the diagnosis and treatment of various **kinase**-related diseases and conditions. Through the use of a bioinformatics strategy, mammalian members of the of tyrosine **kinases** and serine/threonine **kinases** have been identified and their protein structure predicted. **Expression** anal. of the **kinases** is presented. Chromosomal localization of protein **kinase** genes is disclosed and single nucleotide polymorphisms are studied. Assays for the protein **kinases** are developed.

L16 ANSWER 43 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:397023 HCAPLUS
DOCUMENT NUMBER: 135:30738
TITLE: Novel **human protein kinases** and protein **kinase**-like enzymes and their cDNA sequences
INVENTOR(S): Plowman, Gregory D.; Whyte, David; Manning, Gerard; Sudarsanam, Sucha; Martinez, Ricardo; Flanagan, Peter; Clary, Douglas
PATENT ASSIGNEE(S): Sugen, Inc., USA
SOURCE: PCT Int. Appl., 433 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001038503	A2	20010531	WO 2000-US32085	20001122
WO 2001038503	A3	20020131		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1240194	A2	20020918	EP 2000-982200	20001122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003514583	T2	20030422	JP 2001-540254	20001122

PRIORITY APPLN. INFO.:	US 1999-167482P	A1	19991124
	WO 2000-US32085	W	20001122

AB The present invention relates to **kinase** polypeptides, nucleotide sequences encoding the **kinase** polypeptides, as well as various products and methods useful for the diagnosis and treatment of various **kinase**-related diseases and conditions. Through the use of a bioinformatics strategy, 57 **human** members of the protein tyrosine **kinases**'s and serine/threonine **kinase**'s have been identified and their protein structure predicted. Also provided are chromosomal localization, single nucleotide polymorphisms, repeat and catalytic and other domains, and tissue **expression** patterns. The **kinase** and/or **kinase**-like proteins display activity in assays on FLK-1 receptor, IGF-I receptor, HER2, EGF receptor, platelet-derived growth factor receptor, Met tyrosine **kinase** receptor, Src protein **kinase**, Lck, c-kit, Raf, and CDK2/Cyclin

A.

L16 ANSWER 44 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:294219 HCAPLUS
Correction of: 2001:168136
DOCUMENT NUMBER: 134:337614
Correction of: 134:233606
TITLE: Nucleic acid-based ribozyme and DNAzyme modulators of gene expression
INVENTOR(S): McSwiggen, James; Usman, Nassim; Blatt, Lawrence; Beigelman, Leonid; Burgin, Alex; Karpeisky, Alexander; Matulic-adamic, Jasenka; Sweedler, David; Draper, Kenneth; Chowrira, Bharat; Stinchcomb, Dan; Beaudry, Amber; Zinnen, Shawn; Lugwig, Janos; Sproat, Brian S.
PATENT ASSIGNEE(S): Ribozyme Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 717 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001016312 A2		20010308	WO 2000-US23998	20000830
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG				

PRIORITY APPLN. INFO.:

US 1999-PV151713	19990831
US 1999-406643	19990927
US 1999-PV156467	19990927
US 1999-PV156236	19990927
US 1999-436430	19991108
US 1999-PV169100	19991206
US 1999-PV173612	19991229
US 1999-474432	19991229
US 1999-476387	19991230
US 2000-498824	20000204
US 2000-531025	20000320
US 2000-PV197769	20000414
US 2000-578223	20000523

AB Novel nucleic acid mols. useful as inhibitors of gene expression, compns., and methods for their use are provided. The invention features novel nucleic acid-based techniques (e.g., enzymic nucleic acid mols. (ribozymes), antisense nucleic acids, 2-5A antisense chimeras, triplex DNA, and antisense nucleic acids containing RNA-cleaving chemical groups) and their use to modulate the expression of mol. targets impacting the development and progression of cancers, diabetes, obesity, Alzheimer's disease diseases, age-related diseases, and/or hepatitis B infections and related conditions. Catalytic nucleic acids were designed for site-specific cleavage of human mRNA targets encoding protein tyrosine phosphatase 1b, methionine aminopeptidase, β-secretase, presenilin-1, epidermal growth factor receptor-2 (HER2/c-erb2/neu), phospholamban, telomerase, and hepatitis B virus genes. Methods for chemical synthesis of modified nucleoside triphosphates (NTPs) and RNA polymerase-catalyzed incorporation of modified NTPs into catalytic oligonucleotides are also provided. [This abstract record os one of 6 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

L16 ANSWER 45 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2001:296899 BIOSIS
DOCUMENT NUMBER: PREV200100296899
TITLE: **Human protein kinases** hYAK3.
AUTHOR(S): Creasy, Caretha L. [Inventor]; Xie, Wei [Inventor, Reprint author]
CORPORATE SOURCE: Hunan, China
ASSIGNEE: SmithKline Beecham Corporation
PATENT INFORMATION: US 6165766 December 26, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec. 26, 2000) Vol. 1241, No. 4. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 20 Jun 2001
Last Updated on STN: 19 Feb 2002

AB hYAK3 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK3 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndrome (ARDS), Rheumatoid arthritis, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers including testicular cancer; anorexia; bulimia; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome., among others, and diagnostic assays for such conditions.

L16 ANSWER 46 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 2001:266240 BIOSIS
DOCUMENT NUMBER: PREV200100266240
TITLE: **Human protein kinase** HOACF72.
AUTHOR(S): Creasy, Caretha L. [Inventor, Reprint author]; Livi, George P. [Inventor]; Dunnington, Damien J. [Inventor]; Shabon, Usman [Inventor]
CORPORATE SOURCE: Norristown, PA, USA
ASSIGNEE: SmithKline Beecham Corporation
PATENT INFORMATION: US 6159716 December 12, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec. 12, 2000) Vol. 1241, No. 2. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jun 2001
Last Updated on STN: 19 Feb 2002

AB hYAK1 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK1 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndrome (ARDS), Rheumatoid arthris, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers; anorexia; bulimia; Parkinson's disease; **cardiovascular** disease including

restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome, among others, and diagnostic assays for such conditions.

L16 ANSWER 47 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2000:291894 BIOSIS
DOCUMENT NUMBER: PREV200000291894
TITLE: **Human protein kinase** HOACF72.
AUTHOR(S): Creasy, Caretha L. [Inventor, Reprint author]; Livi, George P. [Inventor]; Dunnington, Damien J. [Inventor]; Shabon, Usman [Inventor]
CORPORATE SOURCE: Swarthmore, PA, USA
ASSIGNEE: SmithKline Beecham Corporation, Philadelphia, PA, USA
PATENT INFORMATION: US 5972606 October 26, 1999
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 26, 1999) Vol. 1227, No. 4. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jul 2000
Last Updated on STN: 7 Jan 2002

AB hYAK1 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK1 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndromne (ARDS), Rheumatoid arthritis, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers; anorexia; bulimia; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome, among others, and diagnostic assays for such conditions.

L16 ANSWER 48 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2000:278370 BIOSIS
DOCUMENT NUMBER: PREV200000278370
TITLE: **Human protein kinases** hYAK3.
AUTHOR(S): Creasy, Caretha L. [Inventor, Reprint author]; Xie, Wei [Inventor]
CORPORATE SOURCE: Hengyang, China
ASSIGNEE: SmithKline Beecham Corporation, Philadelphia, PA, USA
PATENT INFORMATION: US 5965420 October 12, 1999
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 12, 1999) Vol. 1227, No. 2. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jul 2000
Last Updated on STN: 7 Jan 2002

AB hYAK3 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK3 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndrome (ARDS), Rheumatoid arthritis, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers including testicular cancer; anorexia; bulimia; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome., among others, and diagnostic assays for such conditions.

L16 ANSWER 49 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2000-03503 BIOTECHDS
TITLE: Polynucleotides and polypeptides for detecting and treating diseases associated with inappropriate **human protein-kinase** H2LAU20 activity levels; **expression** in host cell and antibody
AUTHOR: Brun K A; Creasy C L; Dunnington D J
PATENT ASSIGNEE: SK-Beecham
LOCATION: Philadelphia, PA, USA.
PATENT INFO: US 6001623 14 Dec 1999
APPLICATION INFO: US 1998-126646 31 Jul 1998
PRIORITY INFO: US 1998-126646 31 Jul 1998
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2000-071659 [06]
AB A polynucleotide containing a nucleotide sequence encoding a protein that has at least 95% identity to a defined 620 amino acid protein sequence of protein-**kinase** (EC-2.7.1.37) H2LAU20 is new. Also claimed are: an **expression** system containing a polynucleotide capable of producing the 620 amino acid protein; a process for producing a **recombinant** host cell; a **recombinant** host cell; a process for producing as protein; a polynucleotide of 851 bp; a polynucleotide containing a sequence with at least 95% identity to a 1,863 bp sequence; a polynucleotide obtainable by screening an appropriate library with a DNA probe of 1,863 bp; and a complementary polynucleotide. Also disclosed are a kit containing the polynucleotide, complementary polynucleotide, protein or an antibody and an immunological/vaccine formulation. The polynucleotides and proteins are useful for treating bone loss including osteoporosis, inflammatory diseases, diabetes and associated disorders, infections, immunodeficiency disorders, cancers, Parkinson disease, **cardiovascular** disease and psychotic and neurological disease. (17pp)

L16 ANSWER 50 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1999-06904 BIOTECHDS
TITLE: New synthetic oligonucleotides inhibiting **expression** of protein-**kinase**-C; antisense oligonucleotide synthesis with protein-**kinase**-C-inhibitor activity, used for cancer or psoriasis diagnosis or gene therapy
AUTHOR: Bennett C F; Dean N
PATENT ASSIGNEE: Isis-Pharm.
LOCATION: Carlsbad, CA, USA.
PATENT INFO: US 5882927 16 Mar 1999

APPLICATION INFO: US 1995-478178 7 Jun 1995
PRIORITY INFO: US 1995-478178 7 Jun 1995
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1999-214073 [18]

AB A new antisense oligonucleotide is up to 50 nucleotides in length, has a specified sequence, and is a protein-**kinase**-C-inhibitor which specifically binds **human protein-kinase** -C-alpha mRNA. Also claimed are: a method of inhibiting protein-**kinase**-C-alpha **expression** in cells by contacting them with the oligonucleotide, and a composition containing the oligonucleotide and a chemotherapeutic agent. The oligonucleotides may be used to diagnose abnormal **proliferative** states in tissue or other samples from patients suspected of having a hyperproliferative disease such as cancer or psoriasis. Radiolabeled oligonucleotides may also be used to perform autoradiography of tissues to determine the localization, distribution and quantitation of protein-**kinase**-C **expression** for research, diagnostic and therapeutic purposes. (62pp)

L16 ANSWER 51 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:672991 HCAPLUS
DOCUMENT NUMBER: 131:308409
TITLE: **Cloning** and characterization of **human** STE20-related protein **kinases** and their diagnostic and therapeutic uses
INVENTOR(S): Plowman, Gregory; Martinez, Ricardo; Whyte, David
PATENT ASSIGNEE(S): Sugen, Inc., USA
SOURCE: PCT Int. Appl., 387 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9953036	A2	19991021	WO 1999-US8150	19990413
WO 9953036	A3	20000511		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2369172	AA	19991021	CA 1999-2369172	19990413
AU 9936424	A1	19991101	AU 1999-36424	19990413
EP 1073723	A2	20010207	EP 1999-918539	19990413
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002522009	T2	20020723	JP 2000-543584	19990413
US 2003050230	A1	20030313	US 1999-291417	19990413
US 6680170	B2	20040120		
US 6656716	B1	20031202	US 2000-688188	20001016

PRIORITY APPLN. INFO.:

US 1998-81784P	P	19980414
US 1999-291417	A3	19990413
WO 1999-US8150	W	19990413

AB The present invention relates to the novel **kinase** polypeptides STLK2, STLK3, STLK4, STLK5, STLK6, STLK7, ZC1, ZC2, ZC3, ZC4, KHS2, SULU1, SULU3, GEK2, PAK4, and PAK5, nucleotide sequences encoding the novel **kinase** polypeptides, as well as various products and methods

useful for the diagnosis and treatment of various **kinase**-related diseases and conditions. A targeted PCR **cloning** strategy and a "motif extraction" bioinformatics script were used to identify the new members of the STE20 **kinase** family. Multiple alignment and parsimony anal. of the catalytic domain of all of these STE20 family members reveals that these proteins cluster into 9 distinct subgroups. The present invention also includes the partial or complete sequence of these new members of the STE20 family, their classification, predicted or deduced protein structure, and a strategy for elucidating their biol. and therapeutic relevance. Many of the STE20-related **kinase** genes were mapped to regions associated with various **human** cancers, and the PAK5 gene exhibits a 3-fold amplification compared to the normal DNA copy number in PANC-1 (pancreatic epithelioid carcinoma) and OVCAR-3 (ovarian adenocarcinoma) **human** cell lines. Phage display data suggest potential interactions of SULU3 with SLK and SULU1 with GEK2 through their coiled-coil domains, thereby suggesting a specificity in interaction and implying that these STE20 **kinases** may interact with each other through homo-and hetero-dimerization. The STE20 family **kinases** may be of value (no data) in treating disease or disorder selected from the group consisting of immune-related diseases, myocardial infarction, cardiomyopathies, stroke, renal failure, and oxidative stress-related neurodegenerative disorders.

L16 ANSWER 52 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:464069 HCAPLUS
DOCUMENT NUMBER: 131:99268
TITLE: **Cloning** and cDNA sequence encoding **human** cyclin-dependent **kinase** hPFTAIRE
INVENTOR(S): Reinhard, Christoph; Pot, David; Kassam, Altaf; Marenbach, Tasha; Williams, Lewis T.
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9933962	A1	19990708	WO 1998-US27666	19981228
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6432668	B1	20020813	US 1998-206344	19981207
AU 9920169	A1	19990719	AU 1999-20169	19981228
EP 1042455	A1	20001011	EP 1998-964960	19981228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2003166217	A1	20030904	US 2002-153242	20020522
PRIORITY APPLN. INFO.:			US 1997-68960P	P 19971230
			US 1998-206344	A3 19981207
			WO 1998-US27666	W 19981228

AB A **human** gene encoding a novel cyclin-dependent **kinase** termed hPFTAIRE and its **expression** products can be used to provide reagents and methods for detecting migrating or metastasizing cells. The hPFTAIRE is located on chromosome 7q21-22 and is highly **expressed** in migrating cells, such as metastatic tumor cells and the cells which migrate during gastrulation and nervous system formation. The hPFTAIRE gene is also highly **expressed** in neural tissue, particularly in the hippocampus, retina, olfactory sensory cells, spinal motoneurons, and dorsal root ganglia. HPFTAIRE **expression** is required for a cell to undergo a transition from the G2 to M phase of the

cell cycle; thus, hPFTAIRE protein is involved in regulating mitosis. In addition, hPFTAIRE may associate with different cyclins which have different functions. For example, hPFTAIRE is **expressed** in the testis, a location of high meiotic activity, and may be involved in increasing meiotic activity in that organ. Compns. and methods for treating **proliferative** disorders and neoplasia are also provided.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 53 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:286070 HCAPLUS
DOCUMENT NUMBER: 130:292464
TITLE: A novel **human protein** **kinase** involved in regulating the cell cycle at checkpoints and a cDNA encoding it and the treatment and prevention of DNA damage
INVENTOR(S): Luyten, Walter H. M. L.; Parker, Andrew E.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9920747	A2	19990429	WO 1998-EP6982	19981021
WO 9920747	A3	19990701		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2308013	AA	19990429	CA 1998-2308013	19981021
AU 9912322	A1	19990510	AU 1999-12322	19981021
AU 752617	B2	20020926		
EP 1025236	A2	20000809	EP 1998-955533	19981021
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001520037	T2	20011030	JP 2000-517068	19981021
NZ 503983	A	20020328	NZ 1998-503983	19981021
US 6531312	B1	20030311	US 2000-529154	20000407
PRIORITY APPLN. INFO.:			GB 1997-22320 A	19971022
			WO 1998-EP6982 W	19981021

AB A novel protein **kinase** that plays a role in regulating the passage of cells through cell cycle checkpoints (a checkpoint **kinase**) called hCDS1 is identified and a cDNA encoding it is **cloned**. The **kinase** interacts with the CDC25 gene product in checkpoint control and so may be of use in the treatment of diseases associated with abnormal levels of DNA damage. The gene can also be used as a reporter in assays for DNA damaging agents, e.g. by measuring levels of CDC25 phosphorylation. The gene was first identified by BLAST querying a com. sequence database for sequences similar to the cds1 **kinase** of Schizosaccharomyces pombe. Primers derived from this sequence were used to amplify a cDNA. Gene **expression** was essentially undetectable in all normal tissues tested but was greatly elevated in all cancer cell lines examined The **kinase** indirectly affects the activity of the CDC2 **kinase** by phosphorylating the CDC25 gene product in response to DNA damage, rather than incomplete replication as is the case in fission yeasts.

L16 ANSWER 54 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:807644 HCAPLUS
DOCUMENT NUMBER: 130:208119
TITLE: Protein-**kinase**-Cμ **expression** correlates with enhanced keratinocyte proliferation in normal and neoplastic mouse epidermis and in cell culture
AUTHOR(S): Rennecke, Jorg; Rehberger, Petra Andrea; Furstenberger, Gerhard; Johannes, Franz-Josef; Stohr, Michael; Marks, Friedrich; Richter, Karl Hartmut
CORPORATE SOURCE: DKFZ, Research Program Tumor Cell Regulation, Heidelberg, Germany
SOURCE: International Journal of Cancer (1999), 80(1), 98-103
CODEN: IJCNAW; ISSN: 0020-7136
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To gain insight into the biol. function of a PKC iso-enzyme, the protein **kinase** Cμ, the authors analyzed the **expression** pattern of this protein in mouse epidermis and keratinocytes in culture. Daily anal. of neonatal mouse epidermis immediately after birth showed a time-dependent reduction in the PKCμ content. **Expression** of the proliferating-cell nuclear antigen (PCNA), indicative of the **proliferative** state of cells, was reduced synchronously with PKCμ as the hyperplastic state of the neonatal tissue declined. In epidermal mouse keratinocytes, fractionated according to their maturation state, PKCμ **expression** was restricted to PCNA-pos. basal-cell fractions. In primary cultures of those cells, growth arrest and induction of terminal differentiation by Ca2+ resulted in strongly reduced PKCμ **expression**, concomitantly with the loss of PCNA **expression**. Treatment of PMK-RI keratinocytes with 100 nM of the mitogen 12-O-tetradecanoylphorbol-13-acetate (TPA) resulted in activation of PKCμ, reflected by translocation from the cytosolic to the particulate fraction and by shifts in electrophoretic mobility. DNA synthesis was significantly inhibited by the PKCμ inhibitor Goedecke 6976, while Goedecke 6983 did not inhibit PKCμ. Carcinomas generated according to the 2-stage carcinogenesis protocol in mouse skin consistently exhibited high levels of PKCμ. These data correlate PKCμ **expression** with the **proliferative** state of murine keratinocytes and point to a role of PKCμ in growth stimulation. A correlation between PKCμ **expression** and enhanced cell proliferation was also observed for NIH3T3 fibroblasts transfected with and overexpressing **human** PKCμ.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 55 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
DUPLICATE 5
ACCESSION NUMBER: 1998-11155 BIOTECHDS
TITLE: New DNA encoding hYAK3 **human protein-kinase** polypeptides; vector-mediated gene transfer and **expression** in host cell, antibody, agonist, antagonist, e.g. antisense sequence, and DNA probe, used for disease diagnosis, therapy or gene therapy, etc.
AUTHOR: Creasy C L; Xie W
PATENT ASSIGNEE: SK-Beecham
LOCATION: Philadelphia, PA, USA.
PATENT INFO: EP 870825 14 Oct 1998
APPLICATION INFO: EP 1998-301641 5 Mar 1998
PRIORITY INFO: US 1997-835170 7 Apr 1997; US 1997-40618 5 Mar 1997
DOCUMENT TYPE: Patent
LANGUAGE: English

OTHER SOURCE: WPI: 1998-523155 [45]
AB A new DNA sequence has at least 80% identity to a DNA sequence encoding a **human protein-kinase** (hYAK3, EC-2.7.1.37) with a specified 588 or 568 amino acid protein sequence. Also claimed are: a DNA probe containing at least 15 contiguous nucleotides of the new DNA; a DNA or RNA molecule **expression** system for **expressing** the protein in a host cell; a host cell containing the **expression** system and **expressing** the protein; an antibody immunospecific for the protein; and an agonist and antagonist that modulate activity of the protein. The DNA, protein and agonist may be used for therapy or gene therapy of subjects in need of enhanced hYAK3 activity, and the antagonist (e.g. antisense sequence) may be used to inhibit hYAK3 activity. Diseases associated with hYAK3 include osteoporosis, rheumatoid arthritis, bacterium, protozoon, fungus or virus infection, e.g. HIV virus), cancers, Parkinson disease, **cardiovascular** diseases e.g. restenosis, and psychotic and neurological diseases, e.g. Huntington chorea. The DNA probe may be used for disease diagnosis by detecting a mutation in the new gene, and the cells may be used for drug screening. (28pp)

L16 ANSWER 56 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
DUPLICATE 6
ACCESSION NUMBER: 1998-10069 BIOTECHDS
TITLE: **Recombinant human protein-kinase**-hYAKI (HOACF72); protein and DNA sequence useful for the treatment and diagnosis of a wide range of diseases and disorders and for nucleic acid vaccine and **recombinant** vaccine construction
AUTHOR: Creasy C L; Livi G P; Dunnington D J; Shabon U
PATENT ASSIGNEE: SK-Beecham
LOCATION: Philadelphia, PA, USA.
PATENT INFO: EP 860506 26 Aug 1998
APPLICATION INFO: EP 1998-301124 16 Feb 1998
PRIORITY INFO: US 1997-802466 19 Feb 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1998-439344 [38]
AB **Recombinant** hYAK1 proteins and DNA sequences and methods of protein-**kinase** (EC-2.7.1.37) production are claimed. Also claimed are methods for utilizing hYAK1 proteins and DNA sequences in the design of protocols for therapy of bone loss e.g. osteoporosis, inflammatory disease e.g adult respiratory disease syndrome, Rheumatoid arthritis, osteoarthritis, inflammatory bowel disease, psoriasis, dermatitis, asthma, allergies, infections (such as bacterial, fungal, protozoan, HIV virus-1 or HIV virus-2), HIV virus-associated cachexia and other immunodeficiency disorders, septic shock, pain, injury, cancers, anorexia, bulimia, Parkinson disease, **cardiovascular** disease including restenosis, atherosclerosis, myocardial infarction, hypotension, hypertension, urinary retention, angina pectoris, ulcers, benign prostatic hypertrophy, psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington disease or Gilles dela Tourett syndrome, among others. Diagnostic assays for these conditions are also claimed.

L16 ANSWER 57 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1998-11217 BIOTECHDS
TITLE: New serine-threonine-**kinase** and related nucleic acid, vectors, transformed cells; **human recombinant** protein-**kinase** preparation by vector **expression** in host cell, antisense sequence and ribozyme, used for smooth muscle disease or cancer therapy or gene therapy,

etc.
AUTHOR: Bandman O; Guegler K J; Lal P
PATENT ASSIGNEE: Incyte-Pharm.
LOCATION: Palo Alto, CA, USA.
PATENT INFO: WO 9841639 24 Sep 1998
APPLICATION INFO: WO 1998-US4547 9 Mar 1998
PRIORITY INFO: US 1997-818024 14 Mar 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1998-521225 [44]
AB A new **human protein-kinase** (EC-2.7.1.37) has a specified 376 amino acid protein sequence. Also claimed are: fragments of the protein; a specified 1,498 bp DNA sequence encoding the protein, cDNA and DNA that hybridizes to the new sequence; an **expression** vector containing the DNA; a host cell containing the vector; antibodies that specifically bind to the protein; and agonists or antagonists that specifically bind to the protein and modulate its activity. The new protein is associated with the development of cancer and smooth muscle diseases. The DNA and protein may be used for therapy or gene therapy of hypertension, myocardial infarction, **cardiovascular** shock, angina, arrhythmia, asthma and migraine. Antagonists (e.g. antisense sequences or ribozymes) may be used to treat or prevent a range of tumors, e.g. adenocarcinoma, sarcoma, melanoma, lymphoma, leukemia and myeloma. The protein may also be used to raise antibodies for diagnosis, drug screening or to isolate the protein from natural sources. The DNA may be used as DNA probes and DNA primers for disease diagnosis, identification of related sequences, mapping or for screening specific inhibitors. (63pp)

L16 ANSWER 58 OF 65 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1994-13342 BIOTECHDS
TITLE: **Recombinant** protein-**kinase**-C production by vector **expression** in mammal or insect cell culture;
protein-**kinase**-C antagonist screening for application in cancer, diabetes, asthma, etc. therapy
PATENT ASSIGNEE: Garvan-Inst.Med.Res.
PATENT INFO: WO 9418328 18 Aug 1994
APPLICATION INFO: WO 1994-AU52 4 Feb 1994
PRIORITY INFO: GB 1993-19150 16 Sep 1993; GB 1993-2342 6 Feb 1993
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1994-279749 [34]
AB The following are claimed: (1) a DNA molecule (I) (of specified DNA sequence) which encodes **human protein-kinase** -C (EC-2.7.1.37); (2) a vector containing (I); (3) a mammal or insect cell transformed with (2); (4) production of protein-**kinase**-C by culturing (3); (5) antibodies which bind to protein-**kinase** -C; (6) pure protein-**kinase**-C; (7) a method of screening compounds for their ability to regulate **expression** of protein-**kinase**-C in a cell which involves exposing (3) to the compound and assessing the level of **expression** of (I); and (8) screening compounds for **human protein-kinase**-C antagonist activity by exposing the **human protein-kinase**-C produced in (4) to compounds and assessing the activity of **human protein-kinase**-C. Protein-**kinase**-C and antagonists can be used for treating diabetes, to treat cancer (especially lung cancer) and asthma. Compounds which regulate the activity of protein-**kinase**-C can be used for treatment of hyperglycemia, hyperlipidemia, hypertension, **cardiovascular** disease and certain eating disorders. (24pp)

L16 ANSWER 59 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1994:543015 BIOSIS
DOCUMENT NUMBER: PREV199598002563
TITLE: Identification and characterization of DBK, a novel putative serine/threonine protein **kinase** from **human** endothelial cells.
AUTHOR(S): Chu, Wei; Presky, David H. [Reprint author]; Danho, Waleed; Swerlick, Robert A.; Burns, Daniel K.
CORPORATE SOURCE: Dep. Inflammation/Autoimmune Dis., Hoffman-La Roche Inc., 340 Kingsland St., Nutley, NJ 07110-1199, USA
SOURCE: European Journal of Biochemistry, (1994) Vol. 225, No. 2, pp. 695-702.
CODEN: EJBCAI. ISSN: 0014-2956.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: EMBL-X80229
ENTRY DATE: Entered STN: 22 Dec 1994
Last Updated on STN: 23 Feb 1995

AB Protein **kinases** are involved in signal transduction pathways and play important roles in the regulation of cell functions. cDNA **clones** encoding a novel serine/threonine protein **kinase** sequence, designated as DBK, were isolated from cDNA libraries made from **human** endothelial cells. The compiled nucleotide sequence is 1636 base pairs long, consisting of an open reading frame encoding a 479-amino-acid protein with a calculated molecular mass of 53 kDa. The deduced amino acid sequence contains a protein **kinase** catalytic domain of 263 residues which includes all the characteristic features of a serine/threonine protein **kinase**. The invariant amino acid residues scattered throughout the catalytic domain of almost all known protein **kinases** are also found in DBK. Sequence comparison of DBK catalytic domain shows approximately 51% sequence identities to that of **human protein kinase** C family members.
DBK shares the highest sequence identity, 53%, to that of Drosophila PKC. Northern blot analysis of various **human** tissues and cultured cell lines with a DBK gene-specific cDNA probe demonstrated a single band of 2.0 kb that is **expressed** in all tissues and cell lines examined. Although the **expression** of DBK **kinase** was detected in all **human** tissues analyzed, the levels of **expression** varied significantly, with the highest **expression** detected in lung and heart, and the lowest **expression** found in brain and liver. Anti-DBK peptide-specific rabbit antisera were prepared, and were capable of immunoprecipitating DBK protein from COS cells transfected with DBK cDNA. The DBK gene is a single-copy gene, and is highly conserved across species from **human** to yeast. Using somatic cell hybrids, the DBK gene has been localized to **human** chromosome 14. The ubiquitous **expression** and high degree of conservation of DBK across species suggest that DBK may play an important role in cell functions.

L16 ANSWER 60 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN DUPLICATE 7
ACCESSION NUMBER: 1994:42450 BIOSIS
DOCUMENT NUMBER: PREV199497055450
TITLE: Molecular **cloning**, calpain sensitivity and **proliferative** effect of **human protein kinase** C delta (delta) on megakaryocytic and vascular cells.
AUTHOR(S): Raychowdhury, Malay K.; Xu, Yanping; Chang, James D.; Ariyoshi, Hideo; Kent, K. Craig; Ware, J. Anthony
CORPORATE SOURCE: Cardiovascular Div., Beth Israel Hosp., Harvard Med. Sch., Boston, MA, USA
SOURCE: Circulation, (1993) Vol. 88, No. 4 PART 2, pp. I128.
Meeting Info.: 66th Scientific Sessions of the American Heart Association. Atlanta, Georgia, USA. November 8-11, 1993.

CODEN: CIRCAZ. ISSN: 0009-7322.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Feb 1994
Last Updated on STN: 25 Mar 1994

L16 ANSWER 61 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:486697 HCAPLUS
DOCUMENT NUMBER: 119:86697
TITLE: Regulation of prolactin receptor **expression** by the tumor promoting phorbol ester 12-O-tetradecanoylphorbol-13-acetate in **human** breast cancer cells
AUTHOR(S): Ormandy, Christopher J.; Lee, Christine S. L.; Kelly, Paul A.; Sutherland, Robert L.
CORPORATE SOURCE: Garvan Inst. Med. Res., St. Vincent's Hosp., Sydney, 2010, Australia
SOURCE: Journal of Cellular Biochemistry (1993), 52(1), 47-56
CODEN: JCEBD5; ISSN: 0730-2312
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In both the normal and malignant **human** breast, cellular sensitivity to the **proliferative** and differentiative activities of the lactogenic hormones is conferred by **expression** of the prolactin receptor (PRLR). Recent findings have suggested that PRLR may also be regulated by protein **kinase** C in addition to steroids. This possibility was examined by studying the effect of various modulators of PKC activity on PRLR binding activity and gene **expression** in 5 PRLR-pos. **human** breast cancer cell lines. Treatment with TPA, a tumor promoter and modulator of PKC activity, decreased PRLR binding activity in all cell lines examined In MCF-7 cells, 10 nM TPA caused a 70% loss of PRLR mRNA after 12 h, paralleled 3 h later by a comparable loss of cell surface PRLR. Mezerein, a non-phorbol ester modulator of PKC activity and 1,2-dioctanoyl-sn-glycerol, a permeant analog of the endogenous activator of PKC, also reduced PRLR binding activity and gene **expression** in a time- and concentration-dependent manner. Cycloheximide failed to abrogate to TPA-induced decline in PRLR mRNA levels, indicating that this process was not dependent upon continuing protein synthesis. No change in the stability of PRLR mRNA was observed during 24 h of TPA treatment and TPA reduced the rate of PRLR gene transcription within 3 h of treatment. The results demonstrate that modulators of PKC activity reduce PRLR binding activity and gene **expression**, implicating this signal transduction pathway in PRLR regulation.

L16 ANSWER 62 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1992:504035 BIOSIS
DOCUMENT NUMBER: PREV199294122560; BA94:122560
TITLE: PLATELET-DERIVED GROWTH FACTOR-INDUCED TRANSCRIPTION OF THE VASCULAR ENDOTHELIAL GROWTH FACTOR GENE IS MEDIATED BY PROTEIN **KINASE** C.
AUTHOR(S): FINKENZELLER G [Reprint author]; MARME D; WEICH H A; HUG H
CORPORATE SOURCE: INSTITUTE MOLECULAR CELL BIOLOGY, UNIVERSITY FREIBURG, C/O GOEDECKE AG, D-7800 FREIBURG, GER
SOURCE: Cancer Research, (1992) Vol. 52, No. 17, pp. 4821-4823.
CODEN: CNREA8. ISSN: 0008-5472.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 9 Nov 1992
Last Updated on STN: 10 Nov 1992
AB Platelet-derived growth factor and phorbol ester cause an increase in vascular endothelial growth factor (VEGF) mRNA **expression** in

control NIH 3T3 fibroblasts and NIH 3T3 fibroblasts overexpressing **human protein kinase** C(PKC) μ . In the case of phorbol ester-induced VEGF **expression**, the VEGF nRNA levels were significantly higher in cells overexpressing **human** PKC μ as compared to control cells. In cells stimulated with platelet-derived growth factor or phorbol ester, induction of **expression** was lost after down-regulation of PKC. This indicates that PKC is involved in the signal transduction leading to VEGF **expression**.

L16 ANSWER 63 OF 65 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:556864 HCAPLUS
DOCUMENT NUMBER: 115:156864
TITLE: **Expression** of lineage-restricted protein tyrosine **kinase** genes in **human** natural killer cells
AUTHOR(S): Biondi, Andrea; Paganin, Carla; Rossi, Vincenzo; Benvestito, Serena; Perlmutter, Roger M.; Mantovani, Alberto; Allavena, Paola
CORPORATE SOURCE: Clin. Pediatr., Univ. Milano, Milan, Italy
SOURCE: European Journal of Immunology (1991), 21(3), 843-6
CODEN: EJIMAF; ISSN: 0014-2980
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The hematopoietic lineage derivation, recognition structures, and associated signal transduction pathways of CD3- natural killer (NK) cells have not been identified. Protein tyrosine **kinases** (PTK) structurally related to the product of the c-src protooncogene are differentially **expressed** in distinct hematopoietic differentiation lineages and may participate in specific signal transduction pathways. The present study was aimed at characterizing the **expression** of src-related PTK genes in normal **human** NK cells and in cells from patients with CD3- granular lymphocyte **proliferative** disease. CD3- normal NK cells had high levels of transcripts of the lck gene, which is highly **expressed** in T cells. CD8+ and CD8- NK cells **expressed** similarly high levels of lck mRNA. In contrast, NK cells **expressed** very low levels (25-80-fold less than monocytes) of mRNA encoding the myelomonocytic PTK hck. NK cells also **expressed** fyn transcripts (p59fyn reportedly assocs. with the T cell receptor in T cells) and fgr transcripts, the latter observation confirming a previous report. The pattern of **expression** of the lineage-restricted PTKs lck and hck in NK cells is consistent with the hypothesis of an ontogenic relationship of this population with the lymphocytic rather than myelocytic differentiation pathway. PTK **expressed** in NK cells may participate in signal transduction pathways in this cell population.

L16 ANSWER 64 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1991:27321 BIOSIS
DOCUMENT NUMBER: PREV199191016672; BA91:16672
TITLE: ACTIVATION OF PROTEIN **KINASE** C IS CRUCIAL IN THE REGULATION OF ICAM-1 **EXPRESSION** ON ENDOTHELIAL CELLS BY INTERFERON-GAMMA.
AUTHOR(S): RENKONEN R [Reprint author]; MENNANDER A; USTINOV J; MATTILA P
CORPORATE SOURCE: DEP BACTERIOL IMMUNOL TRANSPLANTATION LAB, UNIV HELSINKI, HELSINKI, FINLAND
SOURCE: International Immunology, (1990) Vol. 2, No. 8, pp. 719-724.
ISSN: 0953-8178.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

ENTRY DATE: Entered STN: 3 Jan 1991
Last Updated on STN: 4 Jan 1991

AB ICAM-1 (CD54) is **expressed** on endothelial cells and serves as an important ligand for the white cell adhesion molecule CD11a/CD18 (LFA-1). Many studies have demonstrated that increased numbers of white cells binding to endothelial cells correlate with the level of ICAM-1 **expression** on endothelial cells. Several cytokines, including IFN-γ, increase ICAM-1 **expression** in cultured **human** endothelial cells. We have analysed the second intracellular messenger pathways involved in IFN-γ-induced up-regulation of ICAM-1 **expression** in endothelial cells. IFN-γ induced a rapid activation of phospholipase C, leading to a breakdown of phosphoinositoldiphosphate (PIP2) into diacyglycerol (DAG) and inositotriphosphate (IP3). DAG is a natural activator of the protein, **kinase** C pathway. We were able to show that the effect induced by IFN-γ could be inhibited by a protein **kinase** C inhibitor, H7, in a dose-dependent manner and mimicked by PMA, which stimulates protein **kinase** C. IFN-γ induced a a 5-fold translocation (activation) of protein **kinase** C from the cytosol into the endothelial cell membrane. Elevation of the IP3 levels led to activation of the calcium-dependent pathway. An inhibitor of calcium calmodulin, W7, decreased the IFN-γinduced ICMA-1 **expression**, and addition of calciuum ionophore to endothelial cells could replace IFN-γ in the up-regulation of ICAM-1. Finally, IFN-γ caused a significant increase in the calcium flux of endothelial cells. cAMP and cGMP had no effect on the regulation of ICAM-1 **expression** on cultured **human** endothelial cells.

L16 ANSWER 65 OF 65 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1987:484680 BIOSIS
DOCUMENT NUMBER: PREV198784119323; BA84:119323
TITLE: DEFECTIVE INTERLEUKIN 2 RECEPTOR **EXPRESSION** IS ASSOCIATED WITH THE T CELL DYSFUNCTION SUBSEQUENT TO BONE MARROW TRANSPLANTATION.
AUTHOR(S): LOPEZ-BOTET M [Reprint author]; DE LANDAZURI M O; IZQUIERDO M; RAMIREZ A; FIGUERA A; CAMARA R; FERNANDEZ-RANADA J
CORPORATE SOURCE: S DE INMUNOL, H DE LA PRINCESA, DIEGO DE LEON 62, MADRID 28006, SPAIN
SOURCE: European Journal of Immunology, (1987) Vol. 17, No. 8, pp. 1167-1174.
CODEN: EJIMAF. ISSN: 0014-2980.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 17 Nov 1987
Last Updated on STN: 17 Nov 1987

AB In the present work we have used monoclonal antibodies (mAb) as probes to attempt a dissection of the mechanisms underlying the immunodeficiency subsequent to bone marrow transplantation (BMT). To this end we have studied 19 allogeneic BMT recipients, analyzing the **proliferative** response of peripheral blood mononuclear cells (PBMC) after inactivation with either phytohemagglutinin (PHA), anti-CD3 or anti-CD2 mAb. All patients presented normal proportions of CD2+ and CD3+ lymphocytes, as assessed by flow cytometry. Our results indicated that in most cases both CD2 and CD3-mediated activation pathways were inefficient to trigger normal T cell proliferation. The addition of exogenous interleukin 2 (IL 2) did not restore in most cases the **proliferative** response, pointing out that additional defects contribute to the hyporesponsiveness. This was more evident in the group of patients studied during the first 6 months. To further dissect the T cell defect we analyzed the effect of a phorbol ester (phorbol myristate acetate, PMA), which activates protein **kinase** C, on the anti-CD3-induced response. Our data showed that PMA synergized with anti-CD3 similarly to exogenous IL2, and restored the

proliferatige response only in certain cases. The **expression** of IL2 receptors (CD25) as assessed by cytofluorimetry, after either PHA or anti-CD3 and PMA stimulation, was shown to be depressed, and the addition of IL2 did not restore it. Finally, we observed that the early increase of intracytoplasmic Ca2+ after anti-CD3 stimulation was comparable to that detected in normal PBMC. Althogether these results indicate that a diminished CD25 **expression** is associated with the T cell defect, and cannot apparently be attributed to an inability of the CD3 molecule to transduce early activation signals thus suggesting that either protein **kinase** C itself or an as yet undefined metabolic step preceding IL2 receptor **expression** is abnormal in variable proportions of T cells after BMT, and constitutes another manifestation of this complex immunodeficiency.

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E2            1      KAPELLER W/AU
E3            0 --> KAPELLER-LIBERMAN R/AU
E4            1      KAPELLERADLER REGINE/AU
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E7          103      KAPELLEROVA A/AU
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E9            2      KAPELLEROVA O/AU
E10           1      KAPELLEVICH S L/AU
E11           1      KAPELLI J P/AU
E12           1      KAPELLI O/AU

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E2           30      KAPELLER PETER/AU
E3          101 --> KAPELLER R/AU
E4            4      KAPELLER REGINE/AU
E5            1      KAPELLER ROSAN/AU
E6           40      KAPELLER ROSANA/AU
E7            4      KAPELLER ROSANNA/AU
E8            2      KAPELLER RUDOLF/AU
E9            2      KAPELLER S/AU
E10           3      KAPELLER SHE A M/AU
E11           1      KAPELLER W/AU
E12           1      KAPELLERADLER REGINE/AU

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E3            1 --> LIBERMANN R/AU
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E6            1      LIBERMANN R P/AU
E7            1      LIBERMANN R W/AU
E8            1      LIBERMANN ROSANA K/AU
E9            4      LIBERMANN S/AU
E10           1      LIBERMANN S L/AU
E11          33      LIBERMANN T/AU
E12         305      LIBERMANN T A/AU

=> e kapeller r/au
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E2           30      KAPELLER PETER/AU
E3          101 --> KAPELLER R/AU
E4            4      KAPELLER REGINE/AU
E5            1      KAPELLER ROSAN/AU
E6           40      KAPELLER ROSANA/AU
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E7            4      KAPELLER ROSANNA/AU
E8            2      KAPELLER RUDOLF/AU
E9            2      KAPELLER S/AU
E10           3      KAPELLER SHE A M/AU
E11           1      KAPELLER W/AU
E12           1      KAPELLERADLER REGINE/AU

=> s e6-e7
L17          44 ("KAPELLER ROSANA"/AU OR "KAPELLER ROSANNA"/AU)

=> d his

     (FILE 'HOME' ENTERED AT 08:56:50 ON 18 OCT 2004)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 08:57:15 ON 18 OCT 2004
                E YOUNG P/AU
L1          1780 S E3
L2           948 S SARCOMERIC/TI
L3             8 S L1 AND L2
L4             3 DUP REM L3 (5 DUPLICATES REMOVED)
L5       1245030 S KINASE?
L6        457845 S HUMAN AND L5
L7       6744128 S CLON? OR EXPRESS? OR RECOMBINANT
L8        226090 S L6 AND L7
L9            38 S "12599"
L10            2 S L8 AND L9
L11            1 DUP REM L10 (1 DUPLICATE REMOVED)
L12      2574803 S CARDIOVASCULAR OR PROLIFERATIVE
L13        11316 S L8 AND L12
L14         2274 S "HUMAN PROTEIN KINASE"
L15           76 S L13 AND L14
L16           65 DUP REM L15 (11 DUPLICATES REMOVED)
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                E LIBERMANN R/AU
                E KAPELLER R/AU
L17           44 S E6-E7

=> s l15 and l17
L18            0 L15 AND L17

=> s l8 and l17
L19           10 L8 AND L17

=> dup rem l19
PROCESSING COMPLETED FOR L19
L20            9 DUP REM L19 (1 DUPLICATE REMOVED)

=> d 1-9 ibib ab

L20  ANSWER 1 OF 9     MEDLINE on STN
ACCESSION NUMBER:    2003363493     MEDLINE
DOCUMENT NUMBER:     PubMed ID: 12777378
TITLE:               Dual specificity mitogen-activated protein (MAP)
                     kinase phosphatase-4 plays a potential role in
                     insulin resistance.
AUTHOR:              Xu Haiyan; Dembski Marlene; Yang Qing; Yang Daseng;
                     Moriarty Ann; Tayber Olga; Chen Hong; Kapeller
                     Rosana; Tartaglia Louis A
CORPORATE SOURCE:    Millennium Pharmaceuticals, Inc., Cambridge, Massachusetts
                     02139, USA.. haiyan.xu@mpi.com
SOURCE:              Journal of biological chemistry, (2003 Aug 8) 278 (32)
                     30187-92.
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Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
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OTHER SOURCE: GENBANK-AY316312
ENTRY MONTH: 200309
ENTRY DATE: Entered STN: 20030805
Last Updated on STN: 20030925
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AB Insulin is the key hormone that controls glucose homeostasis. Dysregulation of insulin function causes diabetes mellitus. Among the two major forms of diabetes, type 2 diabetes accounts for over 90% of the affected population. The incidence of type 2 diabetes is highly related to obesity. To find novel proteins potentially involved in obesity-related insulin resistance and type 2 diabetes, a functional **expression** screen was performed to search for genes that negatively regulate insulin signaling. Specifically, a reporter system comprised of the PEPCK promoter upstream of alkaline phosphatase was used in a hepatocyte cell-based assay to screen an **expression** cDNA library for genes that reverse insulin-induced repression of PEPCK transcription. The cDNA library used in this study was derived from the white adipose tissue of ob/ob mice, which are highly insulin-resistant. The mitogen-activated dual specificity protein **kinase** phosphatase 4 (MKP-4) was identified as a candidate gene in this screen. Here we show that MKP-4 is **expressed** in insulin-responsive tissues and that the **expression** levels are up-regulated in obese insulin-resistant rodent models. Heterologous **expression** of MKP-4 in preadipocytes significantly blocked insulin-induced adipogenesis, and overexpression of MKP-4 in adipocytes inhibited insulin-stimulated glucose uptake. Our data suggest that MKP-4 negatively regulates insulin signaling and, consequently, may contribute to the pathogenesis of insulin resistance.

L20 ANSWER 2 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
DUPLICATE 1
ACCESSION NUMBER: 2001:514295 BIOSIS
DOCUMENT NUMBER: PREV200100514295
TITLE: RGS18 is a myeloerythroid lineage-specific regulator of G-protein-signalling molecule highly **expressed** in megakaryocytes.
AUTHOR(S): Yowe, David [Reprint author]; Weich, Nadine; Prabhudas, Mercy; Poisson, Louis; Errada, Patrick; **Kapeller, Rosanna**; Yu, Kan; Faron, Laura; Shen, Minhui; Cleary, Jennifer; Wilkie, Thomas M.; Gutierrez-Ramos, Carlos; Hodge, Martin R.
CORPORATE SOURCE: Millennium Pharmaceuticals, 75 Sidney Street, Cambridge, MA, 02139, USA
yowe@mpi.com
SOURCE: Biochemical Journal, (1 October, 2001) Vol. 359, No. 1, pp. 109-118. print.
ISSN: 0264-6021.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Nov 2001
Last Updated on STN: 23 Feb 2002

AB Myelopoiesis and lymphopoiesis are controlled by haematopoietic growth factors, including cytokines, and chemokines that bind to G-protein-coupled receptors (GPCRs). Regulators of G-protein signalling (RGSs) are a protein family that can act as GTPase-activating proteins for Galphai- and Galphaq-class proteins. We have identified a new member of the R4 subfamily of RGS proteins, RGS18. RGS18 contains clusters of hydrophobic and basic residues, which are characteristic of an amphipathic helix within its first 33 amino acids. RGS18 mRNA was most highly

abundant in megakaryocytes, and was also detected specifically in haematopoietic progenitor and myeloerythroid lineage cells. RGS18 mRNA was not detected in cells of the lymphoid lineage. RGS18 was also highly **expressed** in mouse embryonic 15-day livers, livers being the principal organ for haematopoiesis at this stage of fetal development. RGS1, RGS2 and RGS16, other members of the R4 subfamily, were **expressed** in distinct progenitor and mature myeloerythroid and lymphoid lineage blood cells. RGS18 was shown to interact specifically with the Galphai-3 subunit in membranes from K562 cells. Furthermore, overexpression of RGS18 inhibited mitogen-activated-protein **kinase** activation in HEK-293/chemokine receptor 2 cells treated with monocyte chemotactic protein-1. In yeast cells, RGS18 overexpression complemented a pheromone-sensitive phenotype caused by mutations in the endogeneous yeast RGS gene, SST2. These data demonstrated that RGS18 was **expressed** most highly in megakaryocytes, and can modulate GPCR pathways in both mammalian and yeast cells in vitro. Hence RGS18 might have an important role in the regulation of megakaryocyte differentiation and chemotaxis.

L20 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:784328 HCAPLUS
DOCUMENT NUMBER: 133:345599
TITLE: Molecules of the **human** KID-1-related serine/threonine protein **kinase** family and their uses
INVENTOR(S): **Kapeller, Rosana**
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: U.S., 39 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6143540	A	20001107	US 1999-237543	19990126
US 6383791	B1	20020507	US 2000-644450	20000823
US 2002115120	A1	20020822	US 2001-971791	20011004
PRIORITY APPLN. INFO.:			US 1999-237543 A3	19990126
			US 2000-644450 A2	20000823

AB Novel HKID-1 polypeptides, proteins, and nucleic acid mols. are disclosed. The **human** HKID-1 protein deduced from the cDNA sequence is predicted to possess one cAMP- and cGMP-dependent protein **kinase** phosphorylation site, 3 protein **kinase** C phosphorylation sites, 3 casein **kinase** II phosphorylation sites, 1 tyrosine **kinase** phosphorylation site, 7 N-myristoylation sites, 1 protein **kinase** ATP-binding region signature, 1 serine/threonine protein **kinase** active site signature, and 1 eukaryotic protein **kinase** domain consensus derived from a hidden Markov model. HKID-1 mRNA is **expressed** in all tissues contained in an MTE array, with highest **expression** in adult being placenta tissues and in fetal tissues being the lung. The gene encoding HKID-1 was localized to **human** chromosome 22 between the D22S1169 and D22S_qter markers. In addition to isolated, full-length HKID-1 proteins, the invention further provides isolated HKID-1 fusion proteins, antigenic peptides, and anti-HKID-1 antibodies. The invention also provides HKID-1 nucleic acid mols., **recombinant expression** vectors containing a nucleic acid mol. of the invention, host cells into which the **expression** vectors have been introduced, and non-**human** transgenic animals in which an HKID-1 gene has been introduced or disrupted. Diagnostic, screening, and therapeutic methods utilizing compns. of the invention are also provided.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:56343 HCAPLUS
DOCUMENT NUMBER: 130:120484
TITLE: Methods for identifying compounds that modulate mammalian tub protein activity
INVENTOR(S): Kleyn, Patrick W.; Moore, Karen J.; **Kapeller, Rosana**
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: U.S., 95 pp., Cont.-in-part of U.S. 5,817,762.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5861239	A	19990119	US 1997-922267	19970902
US 5646040	A	19970708	US 1996-631200	19960412
US 5817762	A	19981006	US 1997-829553	19970328
US 5871931	A	19990216	US 1997-936707	19970924
US 5876919	A	19990302	US 1997-936706	19970924
US 6268130	B1	20010731	US 1997-955918	19971022
US 6043346	A	20000328	US 1999-248203	19990210
US 6207386	B1	20010327	US 1999-406071	19990924
US 2002068286	A1	20020606	US 2001-814986	20010322
US 6605437	B2	20030812		

PRIORITY APPLN. INFO.:

US 1996-631200	A3	19960412
US 1997-829553	A2	19970328
US 1995-604P	P	19950630
US 1995-1273P	P	19950720
US 1995-1444P	P	19950726
US 1995-2759P	P	19950824
US 1995-4424P	P	19950928
US 1996-15396P	P	19960409
US 1996-697766	A2	19960829
US 1997-847040	A3	19970501
US 1997-936707	A3	19970924
US 1999-248203	A3	19990210
US 1999-406071	A1	19990924

AB The present invention relates to the identification of novel nucleic acid mols. and proteins encoded by such nucleic acid mols. or degenerate variants thereof, that participate in the control of mammalian body weight The nucleic acid mols. of the present invention represent the gene corresponding to the mammalian tub (tubby) gene, a gene that is involved in the regulation of body weight The nucleotide sequences of the tub genes of **human** and mouse are presented. The present invention also relates to methods for identifying compds. that modulate tub protein activity. Compds. that modulate tub protein activity include phospholipase C γ, and protein **kinases** Abl, Lck, Hck, Fgr, Blk, Src, Fyn, Yes, and Lyn.
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 5 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1998:433758 BIOSIS
DOCUMENT NUMBER: PREV199800433758
TITLE: The small GTP-binding protein Rho potentiates AP-1 transcription in T cells.
AUTHOR(S): Chang, Jin-Hong; Pratt, Joanne C.; Sawasdikosol, Sansana; **Kapeller, Rosana**; Burakoff, Steven J. [Reprint author]

CORPORATE SOURCE: Div. Pediatr. Oncol., Dana-Farber Cancer Inst., 44 Binney St., Harvard Med. Sch., Boston, MA 02115, USA
SOURCE: Molecular and Cellular Biology, (Sept., 1998) Vol. 18, No. 9, pp. 4986-4993. print.
CODEN: MCEBD4. ISSN: 0270-7306.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Oct 1998
Last Updated on STN: 7 Oct 1998

AB The Rho family of small GTP-binding proteins is involved in the regulation of cytoskeletal structure, gene transcription, specific cell fate development, and transformation. We demonstrate in this report that overexpression of an activated form of Rho enhances AP-1 activity in Jurkat T cells in the presence of phorbol myristate acetate (PMA), but activated Rho (V14Rho) has little or no effect on NFAT, Oct-1, and NF-kappaB enhancer element activities under similar conditions. Overexpression of a V14Rho construct incapable of membrane localization (CAAX deleted) abolishes PMA-induced AP-1 transcriptional activation. The effect of Rho on AP-1 is independent of the mitogen-activated protein **kinase** pathway, as a dominant-negative MEK and a MEK inhibitor (PD98059) did not affect Rho-induced AP-1 activity. V14Rho binds strongly to protein **kinase** Calpha (PKCalpha) in vivo; however, deletion of the CAAX site on V14Rho severely diminished this association. Evidence for a role for PKCalpha as an effector of Rho was obtained by the observation that coexpression of the N-terminal domain of PKCalpha blocked the effects of activated Rho plus PMA on AP-1 transcriptional activity. These data suggest that Rho potentiates AP-1 transcription during T-cell activation.

L20 ANSWER 6 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1995:543665 BIOSIS
DOCUMENT NUMBER: PREV199698557965
TITLE: Phosphoinositide 3-**Kinase** Binds Constitutively to alpha/beta-Tubulin and Binds to gamma-Tubulin in Response to Insulin.
AUTHOR(S): **Kapeller, Rosana**; Toker, Alex; Cantley, Lewis C.; Carpenter, Christopher L. [Reprint author]
CORPORATE SOURCE: Warren Alpert Build. Room 151, 200 Longwood Ave., Boston, MA 02115, USA
SOURCE: Journal of Biological Chemistry, (1995) Vol. 270, No. 43, pp. 25985-25991.
CODEN: JBCHA3. ISSN: 0021-9258.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 31 Dec 1995
Last Updated on STN: 31 Dec 1995

AB Recently we reported the localization of phosphoinositide 3-**kinase** (PI 3-**kinase**) by immunofluorescence to microtubule bundles and the centrosome (Kapeller, R., Chakrabarti, R., Cantley, L., Fay, F., and Corvera, S. (1993) Mol. Cell. Biol. 13, 6052-6063). In complementary experiments we used the **recombinant** p85 subunit of PI 3-**kinase** to identify proteins that associate with phosphoinositide 3-**kinase** and found that phosphoinositide 3-**kinase** associates with alpha/beta-tubulin. The association occurs in vivo but was not significantly affected by growth factor stimulation. We localized the region of p85 that interacts with alpha/beta-tubulin to the inter-SH2 domain. These results support the immunofluorescence data and show that p85 directly associates with alpha/beta-tubulin. We then determined whether phosphoinositide 3-**kinase** associates with gamma-tubulin. We found a dramatic growth factor-dependent association of phosphoinositide 3-**kinase** with gamma-tubulin. Phosphoinositide 3-**kinase** associates with gamma-tubulin in response to insulin and, to a lesser extent, in response to platelet-derived growth factor. Neither epidermal growth factor nor nerve growth factor treatment of cells

results in association of phosphoinositide 3-**kinase** and gamma-tubulin. Phosphoinositide 3-**kinase** is also immunoprecipitated with antibodies to pericentrin in response to insulin, indicating that phosphoinositide 3-**kinase** is recruited to the centrosome. Neither phosphoinositide 3-**kinase** activity, nor intact microtubules are necessary for the association. Treatment of cells with 0.5 m NaCl dissociates gamma-tubulin from the centrosome and disrupts the association of phosphoinositide 3-**kinase** with pericentrin, but not gamma-tubulin. **Recombinant** p85 binds to gamma-tubulin from both insulin stimulated and quiescent cells. These results suggest that the association of phosphoinositide 3-**kinase** with gamma-tubulin is direct. These data suggest that phosphoinositide 3-**kinase** may be involved in regulating microtubule responses to insulin and platelet-derived growth factor.

L20 ANSWER 7 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1993:429033 BIOSIS
DOCUMENT NUMBER: PREV199396083658
TITLE: Src-homology 3 domain of protein **kinase** p59-fyn mediates binding to phosphatidylinositol 3-**kinase** in T cells.
AUTHOR(S): Prasad, Kanteti V. S.; Janssen, Ottmar; **Kapeller, Rosana**; Raab, Monika; Cantley, Lewis C.; Rudd, Christopher E. [Reprint author]
CORPORATE SOURCE: Div. Tumor Immunol., Dana-Farber Cancer Inst., 44 Binney St., Boston, MA 02115, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1993) Vol. 90, No. 15, pp. 7366-7370.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Sep 1993
Last Updated on STN: 3 Jan 1995

AB The Src-related tyrosine **kinase** p59-fyn(T) plays an important role in the generation of intracellular signals from the T-cell antigen receptor TCR-zeta/CD3 complex. A key question concerns the nature and the binding sites of downstream components that interact with this Src-related **kinase**. p59-fyn(T) contains Src-homology 2 and 3 domains (SH2 and SH3) with a capacity to bind to intracellular proteins. One potential downstream target is phosphatidylinositol 3-**kinase** (PI 3-**kinase**). In this study, we demonstrate that anti-CD3 and anti-Fyn immunoprecipitates possess PI 3-**kinase** activity as assessed by TLC and HPLC. Both free and receptor-bound p59-fyn(T) were found to bind to the lipid **kinase**. Further, our results indicate that Src-related **kinases** have developed a novel mechanism to interact with PI 3-**kinase**. Precipitation using GST fusion proteins containing Fyn SH2, SH3, and SH2/SH3 domains revealed that PI 3-**kinase** bound principally to the SH3 domain of Fyn. Fyn SH3 bound directly to the p85 subunit of PI 3-**kinase** as **expressed** in a baculoviral system. Anti-CD3 crosslinking induced an increase in the detection of Fyn SH3associated PI 3-**kinase** activity. Thus PI 3-**kinase** is a target of SH3 domains and is likely to play a major role in the signals derived from the TCR-zeta/CD3-p59-fyn complex.

L20 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:485587 HCAPLUS
DOCUMENT NUMBER: 115:85587
TITLE: Mutations in the juxtamembrane region of the insulin receptor impair activation of phosphatidylinositol 3-**kinase** by insulin
AUTHOR(S): **Kapeller, Rosana**; Chen, Kim C.; Yoakim, Monique; Schaffhausen, Brian S.; Backer, Jonathan; White, Morris F.; Cantley, Lewis C.; Ruderman, Neil B.

CORPORATE SOURCE: Sch. Med., Tufts Univ., Boston, MA, 02111, USA
SOURCE: Molecular Endocrinology (1991), 5(6), 769-77
CODEN: MOENEN; ISSN: 0888-8809
DOCUMENT TYPE: Journal
LANGUAGE: English

AB CHO/IRF960/T962 cells **express** a mutant **human** insulin receptor in which Tyr960 and Ser962 in the juxtamembrane region of the receptor's β-subunit are replaced by Phe and Thr, resp. The mutant insulin receptor undergoes autophosphorylation normally in response to insulin; however, insulin fails to stimulate thymidine incorporation into DNA, glycogen synthesis, and tyrosyl phosphorylation of an endogenous substrate pp185 in these cells. Another putative substrate of the insulin receptor tyrosine **kinase** is phosphatidylinositol 3-**kinase** (PtIns 3-**kinase**). PtdIns 3-**kinase** activity in Chinese hamster ovary cells **expressing** the wild-type **human** insulin receptor (CHO/IR) was previously shown to increase in both antiphosphotyrosine [anti-Tyr(P)] immunoppts. and intact cells in response to insulin. A new technique (detection of the 85-kDa subunit of PtdIns 3-**kinase** using [32P]phosphorylated polyoma virus middle T-antigen as probe) was used to monitor the PtdIns 3-**kinase** protein. The 85-kDa subunit of PtdIns 3-**kinase** was precipitated by anti-Tyr(P) antibodies from insulin-stimulated CHO/IR cells, but markedly less protein was precipitated from CHO/IRF960/T962 cells. The amount of PtdIns 3-**kinase** activity in the immunoppts. was also reduced in the CHO/IRF960/T962 cells compared with CHO/IR cells. In intact CHO/IRF960/T962 cells, insulin failed to stimulate phosphate incorporation into one of the products of activated PtdIns 3-**kinase**, phosphatidylinositol-3,4-bisphosphate[PtdIns(3,4)P2], whereas it caused a 12-fold increase in CHO/IR cells. In contrast, phosphate incorporation into another product, phosphatidylinositol trisphosphate [PtdInsP3], was only partially depressed in the CHO/IRF960/T962 cells. The data indicate that disruption of the juxtamembrane region of the insulin receptor impairs its ability to modulate PtdIns 3-**kinase** activity, and they suggest that PtdIns 3-**kinase** may play an important role in insulin signaling. Further, the levels of PtdIns(3,4)P2 and PtdInsP3 can be differentially regulated in the intact cell, and production of the former may be important for some of the biol. actions of insulin.

L20 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1990:132805 HCAPLUS
DOCUMENT NUMBER: 112:132805
TITLE: Activation of phosphatidylinositol 3-**kinase** by insulin
AUTHOR(S): Ruderman, Neil B.; **Kapeller, Rosana**; White, Morris F.; Cantley, Lewis C.
CORPORATE SOURCE: Sch. Med., Tufts Univ., Boston, MA, 02111, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1990), 87(4), 1411-15
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Phosphatidylinositol 3-**kinase** (PI 3-**kinase**) activity is immunopptd. from insulin-stimulated CHO cells by antiphosphotyrosine and anti-insulin receptor antibodies. Insulin as low as 0.3 nM increased immunoprecipitable PI 3-**kinase** activity within 1 min. Increases in activity were much greater in CHO cells **expressing** the **human** insulin receptor (100,000 receptors per cell) than in control CHO cells (2000 receptors per cell). During insulin stimulation, various lipid products of the PI 3-**kinase** either appeared or increased in quantity in intact cells, suggesting that the appearance of immunoprecipitable PI 3-**kinase** reflects an increase in its activity in vivo. Thus, insulin at physiol. concns. regulates the PI 3-**kinase** and this regulation involves a phys. association between the

insulin receptor and the PI 3-**kinase** and tyrosyl phosphorylation.

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     LIFESCI' ENTERED AT 08:57:15 ON 18 OCT 2004
                E YOUNG P/AU
L1           1780 S E3
L2            948 S SARCOMERIC/TI
L3              8 S L1 AND L2
L4              3 DUP REM L3 (5 DUPLICATES REMOVED)
L5        1245030 S KINASE?
L6         457845 S HUMAN AND L5
L7        6744128 S CLON? OR EXPRESS? OR RECOMBINANT
L8         226090 S L6 AND L7
L9             38 S "12599"
L10             2 S L8 AND L9
L11             1 DUP REM L10 (1 DUPLICATE REMOVED)
L12       2574803 S CARDIOVASCULAR OR PROLIFERATIVE
L13         11316 S L8 AND L12
L14          2274 S "HUMAN PROTEIN KINASE"
L15            76 S L13 AND L14
L16            65 DUP REM L15 (11 DUPLICATES REMOVED)
                E KAPELLER-LIBERMAN R/AU
                E KAPELLER R/AU
                E LIBERMANN R/AU
                E KAPELLER R/AU
L17            44 S E6-E7
L18             0 S L15 AND L17
L19            10 S L8 AND L17
L20             9 DUP REM L19 (1 DUPLICATE REMOVED)
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	Issue Date	Pages	Document ID	Title
1	20021114	119	US 20020168742 A1	59079 and 12599, protein kinase family members and uses therefor
2	20040608	872	US 6747137 B1	Nucleic acid sequences relating to Candida albicans for diagnostics and therapeutics

	Issue Date	Pages	Document ID	Title
1	20040902	59	US 20040171539 A1	Regulation of human protein kinase-like protein

	Issue Date	Pages	Document ID	Title
1	20040429	93	US 20040083496 A1	18431 and 32374, novel human protein kinase family members and uses therefor
2	20040311	62	US 20040048305 A1	14171 Protein kinase, a novel human protein kinase and uses thereof
3	20040226	138	US 20040038346 A1	Novel human protein kinases and uses therefor
4	20030925	520	US 20030180930 A1	Novel human protein kinase, phosphatase, and protease family members and uses thereof
5	20030904	47	US 20030166214 A1	55596, a human protein kinase family member and uses therefor
6	20021114	119	US 20020168742 A1	59079 and 12599, protein kinase family members and uses therefor
7	20020919	87	US 20020132321 A1	14790, Novel protein kinase molecule and uses therefor
8	20020606	74	US 20020068698 A1	13237, 18480, 2245 or 16228 novel human protein kinase molecules and uses therefor
9	20020523	62	US 20020061573 A1	18431 and 32374, novel human protein kinase family members and uses therefor

	Issue Date	Pages	Document ID	Title
10	20020321	138	US 20020034780 A1	Novel human protein kinases and uses therefor
11	20020117	75	US 20020006618 A1	Methods for using 20893, a human protein kinase
12	20031028	133	US 6638721 B2	Human protein kinases and uses therefor
13	20031007	50	US 6630335 B1	14171 protein kinase, a novel human protein kinase and uses thereof

	Issue Date	Pages	Document ID	Title
1	20021114	119	US 20020168742 A1	59079 and 12599, protein kinase family members and uses therefor

	L #	Hits	Search Text
1	L1	293	human adj protein adj kinase$2
2	L2	668545	clon$3 or express$3 or recombinant
3	L3	135	"12599"
4	L4	158	l1 same l2
5	L5	0	l3 same l4
6	L6	2	l1 and l3
7	L7	60566	cardiovascular or proliferative
8	L8	1	l4 same l7
9	L9	1	l1 same l3
10	L10	99	KAPELLER-LIBERMANN-ROSANA
11	L11	13	l1 and l10
12	L12	1	l3 and l10